

**QUESTIONS BANK**(Prepared by MSME TOOL ROOM-KOLKATA)

Course Name: **Certificate Course In CNC TURNING**

Course Code – **MSME / CCCT / 55**

Subject Name: **Engineering Metrology**

60 questions X 1 marks = 60 Marks

**TOPIC – 1(30 questions x 1 =30 marks)**

**Choose the correct answer from the alternatives –**

**1) Which thread is the most efficient?**

- a) Acme thread.      b) V – thread.      c) Square thread.      d) None.      **Ans: c)**

**2) The distance from a point on one thread to a corresponding point on the next thread is called the-**

- a) Lead.      b) Pitch.      c) Travel.      d) Gap.      **Ans: a)**

**3) For with worth thread the angle between the to flank is .....**

- a) 55°      b)47.5°      c)29°      d) 45°      **Ans: a)**

**4) The root diameter of a screw thread is same as**

- a) Major dia.      b) Pitch dia.      c) Minor dia.      d) Core dia.      **Ans: c)**

**5) The crest diameter of a screw thread is same as**

- a) Major dia.      b) Pitch dia.      c) Minor dia.      d) Core dia.      **Ans: a)**

**6) A screw jack is used where we need**

- a) Rotational motion.      b) Linear motion.      c) Linear as well as rotation motion.      d) None.      **Ans: b)**

**7) The Acme screw thread is of**

- a) V – thread form.      b) Square thread form.      c) Trapezoidal thread form.      d) None.      **Ans: a)**

**8) The angle of buttress thread is**

- a) 35°      b) 55°      c) 45°      d) None.      **Ans: c)**

**9) Which type of nut presents slipping while tightening?**

- a) Square nut.      b) Hexagonal.      c) Castle nut.      d) None.      **Ans: b)**

**10) Which fastener prevents relative motion between parts being connected?**

- a) Set screws .      b) Bolt.      c) Stud.      d) None .      **Ans: a)**

**11) If a nut, when turned in clockwise direction screw on a bolt, the thread is a**

- a) Left hand thread.      b) Right hand thread.      c) All of these.      d) None of these.      **Ans: b)**

**12) \_\_\_\_\_ is most commonly used in workshop for measuring components of limited accuracy –**

- a) Steel rule.      b) Try square.      c) Vernier caliper.      d) Micrometer.      **Ans : a)**

**13) Example of a Non-precision measuring instrument.**

- a) Combination set.      b) Vernier caliper.      c) Micrometer.      d) Dial indicator.      **Ans : a)**

**14) For checking external and internal radius on a curved surface.**

- a) Wire gauge.      b) Radius gauge.      c) Planer gauge.      d) Plug gauge.      **Ans : b)**

**15) The precision measuring instrument should possess the following characteristics :-**

- a) High degree of accuracy.      b) Proper calibration.      c) Less accuracy.      d) All of these.      **Ans : d)**

- 16) Example of a precision measuring instrument is –  
 a) Vernier caliper. b) Dial test indicator. c) Outside Micrometer. d) All of these. **Ans : d)**
- 17) Which of the following instrument is most accurate?  
 a) Mechanical Comparator. b) Optical protector. c) Slip gauge. d) Vertical caliper. **Ans : b)**
- 18) A comparator for its working depends on :  
 a) Optical devices. b) Accurately calibrated scale. c) Determining zero error of scale accurately.  
 d) Comparison with standard such a slip gauge. **Ans : d)**
- 19) 9 micron = ..... mm  
 a) 0.09. b) 0.0009. c) 0.9. d) 0.009. **Ans: d)**
- 20) Vernier Bevel protractors are used for checking-  
 a) "V" block. b) Inside beveled face of a ground surface. c) Measuring acute angle. d) All of these **Ans : d)**
- 21) Clinometers are used for checking-  
 a) Linear measurement. b) Angular measurement. c) Taper measurement. d) All of these. **Ans : b)**
- 22) Try square is made of –  
 a) Alloy steel. b) Cast steel. c) Both a. and b. d) None of these. **Ans : c)**
- 23) \_\_\_\_\_ Gauge is used to check the Pitch of the screw thread.  
 a) Screw pitch gauge. b) Plug gauge. c) Planer gauge. d) Wire gauge. **Ans : a)**
- 24) The least count of Vernier caliper is –  
 a) 0.02mm. b) 0.002mm. c) 0.01mm. d) 0.001mm. **Ans : a)**
- 25) The "U Frame " in Outside Micrometer is generally made of –  
 a) Cast iron. b) Cast steel. c) Both a. and b. d) None of these. **Ans : c)**
- 26) The principle of interchangeability is normally employed for –  
 a) Mass production. b) Production of identical parts. c) Parts within the prescribed limit of size. d) All of these. **Ans : d)**
- 27) The following is a line standard of measurement-  
 a) Measuring tape. b) Slip gauge. c) Micrometer. d) End bars. **Ans : a)**
- 28) The following is an internationally recognized and accepted unit system.  
 a) MKS. b) FPS. c) SI. d) All of these. **Ans : c)**
- 29) Error of measurement –  
 a) True value – measured value. b) Precision – true value. c) Measured value – Precision. d) None of these. **Ans : a)**
- 30) The degree of closeness of the measured value of a certain quantity within its true value is known as-  
 a) Accuracy. b) Precision. c) Standard. d) Sensitivity. **Ans : a)**
- 31) Which of the following material is used to make an angle gauge block?  
 a) Hardening tool steel. b) Nickel. c) Tungsten carbide d) All of these. **Ans : d)**
- 32) Which type of tolerance does a slip gauge have?  
 a) Unilateral tolerance. b) Bilateral tolerance. c) Both a. and b. d) None of these. **Ans : b)**

- 33) A Bore Dial Gauge normally used for checking  
 a) Deep hole b) Blind hole c) Taper hole d) Threaded hole **Ans:- a)**
- 34) Which of the following is not a type of direct measuring instrument?  
 a) Micrometer. b) Vernier caliper. c) Divider. d) All of these. **Ans : c)**
- 35) Testing flatness or straightness of a surface is possible using-  
 a) Vernier caliper. b) Micrometer. c) Autocollimator. d) All of these. **Ans : c)**
- 36) What is the value of flatness for the surface upon which slip gauge are wrung?  
 a) 0.001mm. b) 0.001mm. c) 0.01mm. d) 0.1mm. **Ans : a)**
- 37) Slip gauge are made of –  
 a) High grade steel. b) Mild steel. c) Alloy steel. d) None of these. **Ans : a)**
- 38) Which of the following mechanism followed by Micrometer  
 a) Nut – Bolt b) Rack- Pinion c) Quick Return d) Gear mechanism **Ans : a)**
- 39) Passmeter is used for checking \_\_\_\_\_.  
 a) External measurement. b) Internal measurement. c) Depth measurement. d) All of these. **Ans : a)**
- 40) Dial test indicator has a least count of-  
 a) 0.01mm. b) 0.02mm. c) 0.002mm. d) 0.05mm. **Ans :a)**
- 41) Dial test indicator is a type of –  
 a) Mechanical comparator. b) Optical comparator. c) Pneumatic comparator. d) Multi check comparator. **Ans : a)**
- 42) Vernier Bevel Protractor is used for checking-  
 a) Linear measurement. b) Angular measurement. c) Taper measurement. d) All of these. **Ans : b)**
- 43) Angle Gauges are used for checking –  
 a) Linear measurement. b) Taper measurement. c) Angular measurement. d) None of these. **Ans: c)**
- 46) Following parts are available in micrometer  
 a) Ratchet b) Anvil c) Thimble d) All of these **Ans:- a)**
- 47) The Sine bar is made of –  
 a) High carbon. b) Mild steel. c) Aluminum. d) All of the above. **Ans: a)**
- 48) 1 inch = ..... mm  
 a) 25.4 mm. b) 2.54 mm. c) 0.254 mm. d) None of these. **Ans: a)**
- 49) The least count of a Vernier bevel protector is equal to ..... Minutes of arc.  
 a) 5. b) 3. c) 4. d) 6. **Ans: a)**
- 50) What is the least count dial indicators which can be calibrated using parameter?  
 a) 0.01mm. b) 0.03mm. c) 0.05mm. d) 0.07mm. **Ans: a)**
- 51) 0.01 millimeter measurement can be achieved by  
 a) Vernier Caliper. b) Micrometer. c) Steel Rule. d) measuring Tape. **Ans: b)**

**52) Which of the following material is / are used to make an angle gauge block?**

a) Hardening tool steel. b) Nickel.c) Tungsten carbide.d) All of the above. **Ans: d)**

**53) Which type of tolerance does a slip gauge have?**

a) Unilateral tolerance.b) Bilateral tolerance.c) Both a & b.d) None of the above. **Ans: b)**

**54)Which among the following is measured using for ball method**

a) Diameter. b) Length.c) Angle.d) All of the above.

**Ans: a)**

**55)Following parts is not available in Vernier Caliper**

a) Fixed Jaw b) Vernier Scale c) Barrel c) Horn

**Ans:- c)**

**56) Which of the following is not a type of direct measuring instrument ?**

a) Micrometer . b) Vernier caliper.c) Divider.d) All of the above.

**Ans: c)**

**57) Testing flatness or straightens of a surface is possible using.**

a) Vernier caliper.b) Micro meter.c) Autocollimator.d) All of the above.

**Ans: c)**

**58) 1 radian = ..... Degree**

a) 57.29 b) 43.25 c) 60.12 d) 33.29

**Ans: a)**

**59) The angle of knuckle thread is -**

a) 90° b) 29° c) 45° d) None of these

**Ans: d)**

**60) The straight distance covered by a nut or bolt in one rotation is called.**

a) Pitch.b) Flank. c) Lead.d) Slope.

**Ans: c)**

**61) The angle formed by the two sides of a thread at its root is called –**

a) Angle of thread. b) Flank angle. c) Slope angle. d) Lead angle.

**Ans: a)**

**62) The angle of square thread is –**

a) 90° b) 29° c) 45° d) 60°

**Ans: a)**

**63) Acme thread usually used in –**

a) Lathe machine.b) Milling machine.c) Grinding machine.d) All of these.

**Ans: a)**

**64) Thread micrometer can measured ..... Of the thread.**

a) Pitch.b) Lead.c) Flank.d) Depth of thread.

**Ans: a)**

**65) If a nut, when turned in anticlockwise direction screw of a bolt, the thread is a**

a) Left hand thread.b) Right hand thread.c) All of these.d) None of these.

**Ans: a)**

**66) Inside micrometer is used for measuring –**

a) Internal dimension. b) External dimension. c) Depth dimension. d) All of these.

**Ans : a)**

**67) How many divisions are graduated on thimble –**

a) 20. b) 25. c) 45. d) 50.

**Ans : d)**

**68) Surface plate is made up of –**

a) Granite. b) Cast iron. c) Glass. d) All of these.

**Ans: d)**

**69) What is total error in Micrometer?**

- a) Positive and negative deviation from the zero point. b) Error in parallelism. c) Deviation from measurement of nominal dimension. d) Maximum difference between ordinate of cumulative error. **Ans : d)**

**70) The following is not used to measure angle**

- a) Bevel Protractor. b) Calibrated levels. c) Clinometers. d) Optical flats. **Ans : d)**

**71) The following is not a method to find effective thread diameter-**

- a) Thread micrometer. b) Two wire method. c) Three wire method. d) The V –piece method. **Ans : d)**

**72) The following is not a type of Comparator –**

- a) Electrical. b) Pneumatic. c) Optical. d) Hydraulic. **Ans : d)**

**TOPIC – 2(30 questions x 1 =30 marks)**

**1) Nearest deviation between hole and shaft from the basic value is known as -**

- a) Fundamental deviation. b) Tolerance. c) Clearance. d) Interference. **Ans : a)**

**2) Dimension stated as  $\varnothing 25 \pm 0.01$  is an example of -**

- a) Unilateral system. b) Bilateral system. c) All of these. d) None of these. **Ans : a)**

**3) Negative allowance is called -**

- a) Tolerance. b) Clearance. c) Interference. d) None of these. **Ans : c)**

**4) Wringing Fit is a type of -**

- a) Clearance fit. b) Transition fit. c) Interference fit. d) All of these. **Ans : b)**

**5) Taper holes used for checking are called-**

- a) Taper plug gauge. b) Snap gauge. c) Ring gauge. d) Plug gauge. **Ans : a)**

**6) In a manufacturing of hole and shaft, maximum shaft diameter was 49.88mm and Minimum hole diameter was found to be 49.94mm. It is a -**

- a) Clearance fit. b) Interference fit. c) Transition fit. d) None of these. **Ans : a)**

**7) For manufacturing of certain amount of hole, maximum hole size was found to be 50.14 mm and minimum hole size was found to be 49.98. Tolerance in mm will be -**

- a) 0.12 b) 0.13 c) 0.16 d) 0.20 **Ans : c)**

**8) The algebraic difference between the upper limit of size and the corresponding basic Size is called -**

- a) Lower deviation. b) Basic size. c) Actual size. d) Upper deviation. **Ans : d)**

**9) The algebraic difference between Lower limit of size and the corresponding basic size is called-**

- a) Lower deviation. b) Actual size. c) Basic size. d) Upper deviation. **Ans : a)**

**10) The dimension as measured on a manufactured part is called -**

- a) Actual size. b) Basic size. c) Zero line. d) Nominal size. **Ans : a)**

**11) The range of permissible variation in dimension of a part is called-**

- a) Limit. b) Tolerance. c) Allowance. d) Fit. **Ans : a)**

**12) Why are pitch errors observed in thread?**

- a) Lack of inspection.   b) Incorrect ratio of tool work velocity.   c) Interference between mating parts.  
d) All of the above. **Ans : b)**

**13) Which thread has a combined strength of square thread and V thread?**

- a) Acme thread.   b) Knuckle thread.   c) Bittern thread.   d) B SW thread. **Ans : c)**

**14) Which type of errors show linear relation between cumulative pitch error and length of thread?**

- a) Periodic errors.   b) Progressive errors.   c) Both a & b.   d) None. **Ans : b)**

**15) What is used to measure the major diameter of an external thread?**

- a) Bench micrometer.   b) Thread micrometer.   c) One wire method.   d) All of the above. **Ans : a)**

**16) Which types of threads are used to transmit power in one direction?**

- a) Square thread.   b) Buttress threads.   c) Both a & b.   d) None. **Ans : c)**

**17) There are some reasons for controlling surface texture. That reason are-**

- a) To improve the fatigue resistance.   b) To reduce initial wear of parts.   c) All of these.  
d) None of these. **Ans : c)**

**18) Factor that affecting surface roughness are-**

- a) Vibration.   b) Type of machining.   c) Material of the work piece.   d) All of these. **Ans : d)**

**19) Degree of lightness and looseness between the mating parts is called -**

- a) Basic size.   b) Fit.   c) Limit.   d) Fundamental deviation. **Ans : b)**

**20) The algebraic difference between the actual size and the corresponding basic size is called -**

- a) Basic size.   b) Deviation.   c) Allowance.   d) Fundamental deviation. **Ans : b)**

**21) Prescribed difference between the dimensions of making parts to perform specific function is called-**

- a) Tolerance.   b) Allowance.   c) Deviation.   d) None of these. **Ans : b)**

**22) Gauges used for checking the product as it is being manufactured are called -**

- a) Master gauge.   b) Inspection gauge.   c) Working gauge.   d) All of these. **Ans : c)**

**23) A 20mm "h" shaft with tolerance grade IT8 is denoted by -**

- a)  $\varnothing 20H8$ .   b)  $\varnothing 20h8$ .   c) All of these.   d) None of these. **Ans : b)**

**24) Gauges used for checking maximum metal limit are called -**

- a) No - Go gauge.   b) Go gauge.   c) Plug gauge.   d) Gap gauge. **Ans : b)**

**25) Gauges used for checking minimum metal limit are called-**

- a) No - Go gauge.   b) Go gauge.   c) Plug gauge.   d) Gap gauge. **Ans : a)**

**26) Positive allowance is called -**

- a) Tolerance.   b) Clearance.   c) Interference.   d) None of these. **Ans :- b)**

**27) Tolerance is the difference between -**

- a) Upper limit and lower limit.   b) Upper limit and basic size.   c) Lower limit and basic size.  
d) None of these. **Ans : a)**

**28) Which of the following statements is/are false?**

- a) Interference is observed in tight fit.    b) Allowance represents minimum interference for interference fit.  
c) Clearance is observed in push fit.    d) All of the above.    **Ans : b)**

**29) What is a loose running fit?**

- a) Loose running fit has a minimum clearance.    b) They can be used in textile machinery.    c) Used in high Precision task.    d) All the above.    **Ans : b)**

**30) Which among the following is a type of clearance fit?**

- a) Force fit .    b) Push Fit.    c) Slide fit.    d) Tight fit.    **Ans : c)**

**31) How is interference between Shaft and hole calculated?**

- a) Interference = maximum shaft - minimum hole.    b) Interference = minimum shaft - maximum hole.  
c) Interference = minimum shaft + maximum hole.    d) None of these.    **Ans : b)**

**32) The nearest deviation to the zero line for either hole or shaft is called -**

- a) Upper deviation.    b) Lower deviation.    c) Fundamental deviation.    d) None of these .    **Ans : c)**

**33) Where the hole size is kept constant and the shaft sizes are varies to give the various types of fit is called-**

- a) Hole basis system.    b) Shaft basis system.    c) Fundamental deviation.    d) None of these.    **Ans : a)**

**34) Where the Shaft size is kept constant and the Hole sizes are varies to give the various types of fit is called -**

- a) Hole basis system.    b) Shaft basis system.    c) Fundamental deviation.    d) None of these.    **Ans : b)**

**35) Gauges used for checking the holes are called -**

- a) Plug gauge.    b) Snap gauge.    c) Planer gauge.    d) Gap gauge.    **Ans : a)**

**36) What does allowance represent in clearance fits?**

- a) It represents minimum clearance and is positive.    b) It represents maximum clearance and is positive.  
c) It represents minimum clearance and is negative.    d) It represents maximum clearance and is negative.    **Ans : a)**

**37) The amount by which the actual size of a Shaft is less than actual size of mating hole in an assembly-**

- a) Clearance.    b) Interference.    c) Allowance.    d) None of these.    **Ans : a)**

**38) Following is the theoretical size which is common to both the parts of a mating pair-**

- a) Nominal size.    b) Actual size.    c) Basic size.    d) All of these.    **Ans : c)**

**39) The snap gauge having go dimension corresponds to-**

- a) Maximum metal condition.    b) Minimum metal condition.    c) Minimum material condition.  
d) None of these.    **Ans : a)**

**40) The principle of "Interchangeability" is normally employed for-**

- a) Mass production.    b) Production of identical parts.    c) All of these.    d) None of these.    **Ans : c)**

**41) Gauges used for checking the Shafts are called -**

- a) Ring gauge.    b) Feeler gauge.    c) Plug gauge.    d) Master gauge.    **Ans : a)**

**42) Which type of deviation is observed while calculating hole dimensions?**

- a) Positive.    b) Negative.    c) Zero.    d) All of above.    **Ans : d)**

- 43) In a hole basis system, basic size is equal to-  
 a) Maximum hole size. b) Minimum hole size .c) Upper deviation which is zero. d) None of these. **Ans : b)**
- 44) Gauges used for checking the finished products are called -  
 a) Master gauge. b) Inspection gauge. c) Working gauge. d) All of these. **Ans : b)**
- 45) Value of minimum interference is given by -  
 a) Sizes of smallest hole - size of biggest hole. b) Sizes of smallest shaft + size of biggest hole.  
 c) Sizes of smallest shaft - size of biggest hole. d) None of these. **Ans : c)**
- 46) When size of smallest shaft is more than size of biggest hole then it is -  
 a) Clearance fit. b) Interference fit. c) Transition fit. d) None of these. **Ans : b)**
- 47) A hole is dimension  $\varnothing 9+0.015\text{mm}$ ; the corresponding shaft is of dimension  $\varnothing 9+0.017\text{mm}$ .  
 the resulting assembly has -  
 a) Loose running fit. b) Close running fit. c) Transition fit. d) Interference fit. **Ans : d)**
- 48) Value of allowance is given by -  
 a) Low limit of hole - High limit of shaft. b) High limit of hole - Low limit of shaft.  
 c) Low limit of shaft - High limit of hole. d) High limit of shaft - Low limit of hole. **Ans : a)**
- 49) According to Taylor's principle which type of gauge checks both size and geometric features?  
 a) Go gauge. b) No - go gauge. c) Both a. and b. d) None of these. **Ans : a)**
- 50) The surface irregularities of small wavelength are called-  
 a) Roughness. B) Waviness. C) Flaws. D) Lay. **Ans : a)**
- 51) The surface irregularities of considerable wave length of a periodic character are called  
 a) Flaws. B) Waviness. C) Roughness. D) Lay. **Ans : b)**
- 52) What does effective profile mean, while defining a surface texture?  
 a) Work piece having repetitive irregularities. b) Roughness can be measured in this imaginary profile.  
 c) Real Contour of a surface. d) All of the above. **Ans : c)**
- 53) Which among the following causes first order surface irregularity?  
 a) Lack of straightness. b) Lack of rigidity. c) Feed and speed. d) Vibration. **Ans : a)**
- 54) Which among the following is a type of direct measuring instrument of roughness?  
 a) Micro interferometer. b) Wallace surface dynamometer. c) Profilometer. d) None of the above. **Ans : c)**
- 55) What the relation between rates is of wear and contact surface area?  
 a) Rate of wear is inversely proportional to the contact surface area. b) Rate of wear is directly proportional  
 to the contact surface area. c) Rate of wear is inversely to the square of contact surface area. d) Rate of  
 wear is directly to the of contact surface area. **Ans : b)**
- 56) Which of the following is not true about first order irregularities?  
 a) Arising due to irregularities in machine tool itself. b) Arising due to weight of material itself. c) Arising  
 due to vibration. d) May arises due to deformation of work under action. **Ans : c)**
- 57) Under which group, does waviness in surface falls?  
 a) Primary texture. b) Secondary texture. c) Tertiary texture. d) Quaternary texture. **Ans : b)**
- 58) In how many categories geometrical irregularities can be classified?  
 a) 3. B) 2. C) 4. D) 5. **Ans : c)**



- 59) Wire gauge is used to check-  
 a) Diameter of wire. B) Radius on a curved surface. c) Both a. and b. d) None of these. **Ans : a)**
- 60) The maximum clearance between hole  $\varnothing 30 +0.021$  and shaft  $\varnothing 30 -0.143$  is .....  
 a) 0.163 mm b) 0.143 mm c) 0.131 mm d) 0.110 mm **Ans: a)**
- 61)  $\varnothing 20 H7$  Stands for  
 a) Hole dimension b) Shaft Dimension c) Both a. and b. d) All of them **Ans: a)**
- 62)  $\varnothing 20 g6$  Stands for  
 a) Hole dimension b) Shaft Dimension c) Both a. and b. d) All of them **Ans: b)**
- 63) Dimension stated as  $\varnothing 20 \pm 0.02$  is an example of -  
 a) Unilateral. b) Bilateral. c) All of these. d) None of these. **Ans: b)**
- 64) The distance measured radially between the major diameters of the thread is called -  
 a) Flank. b) Depth of thread. c) Pitch. d) Major diameter **Ans :b)**
- 65) In case of a single start thread lead is equal to -  
 a) 1/pitch. b) 1 pitch. c) Diameter of bolt. d) None of these. **Ans : b)**
- 66) The angle of Acme thread is -  
 a)  $29^\circ$ . b)  $30^\circ$ . c)  $45^\circ$ . d)  $59^\circ$ . **Ans : a)**
- 67) The metric designation M20 X 2 is for an  
 a) External thread. b) Internal thread. c) Both for internal as well as external thread d) None of these. **Ans : b)**
- 68) Which type of thread is used in screw jacks -?  
 a) V- thread. b) Acme thread. c) Square thread. d) None. **Ans : c)**
- 69) Which size of the following is acceptable for  $\varnothing 30 H7$   
 a) 30.02 b) 30.07 c) 29.98 d) 29.3 **Ans:- a)**
- 70) Which size of the following is acceptable for  $\varnothing 30 g6$   
 a) 30.02 b) 30.07 c) 29.98 d) 29.3 **Ans:- c)**
- 71) Full form of CMM in Engineering Metrology is -  
 a) Computerized Measuring Machine. b) Co-ordinate Measuring Machine. c) Co-operate Measuring Machine. d) All of these. **Ans: b)**
- 72) Advantages of Co -ordinate Measuring machines are -  
 a) Improved accuracy. b) Faster rate of inspection. c) None of these. d) All of these. **Ans : d)**
- 73) The top most point of the screw thread is called -  
 a) Crest. b) Root. c) Pitch. d) Depth of thread. **Ans : a)**
- 74) The bottom point of the screw thread is called -  
 a) Crest. b) Root. c) Pitch. d) Depth of thread. **Ans : b)**
- 75) The straight surface between the crest and root is called -  
 a) Crest. b) Pitch. c) Flank. d) Root. **Ans : c)**

**76) The crest diameter of a screw thread is the**

- a) Minor diameter.      b) Major diameter.      c) Core diameter.      d) None of these.

**Ans : b)**

**77) Why are pitch errors observed in thread -**

- a) Lack of inspection.      b) Incorrect ration of toll work velocity.      c) Interference between mating parts.  
d) All of the above.

**Ans : b)**

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