

Duration: 30 Mins

Total Marks: 50

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1. Calculate the change gear to cut 8 mm pitch on a work having a lead screw of 4 mm pitch gear 20 to 120 teeth by 5 teeth range

- A) Driver 50 teeth Driven 60 teeth B) Driver 60 teeth Driven 35 teeth
 C) Driver 80 teeth Driven 25 teeth D) Driver 40 teeth Driven 20 teeth

Answer: D) Driver 40 teeth Driven 20 teeth

2. Where multistart threads are used?

- A) For general fastening B) For quick transmission
 C) For easy alignment D) For easy engagement

Answer: B) For quick transmission

3. What does Sq 60 x 9 IS 4694-1968 means?

- A) Square Thread 60 mm dia, 9 mm pitch B) Worm thread 60 mm dia x 9 mm pitch
 C) Acme thread 60 mm dia x 9 mm pitch D) Buttress thread 60 mm dia x 9 mm pitch

Answer: A) Square Thread 60 mm dia, 9 mm pitch

4. Which one is the angle of buttress thread?

- A) 30 Degree B) 55 Degree
 C) 60 Degree D) 45 Degree

Answer: D) 45 Degree

5. How many numbers of gears having in a simple gear train?

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

Answer: A) 3

6. What is the meaning of M24 in M 24 x 3 single start thread?

- A) Major dia of thread B) Effective dia of thread
 C) Depth of thread D) Core dia of thread

Answer: A) Major dia of thread

7. Which formula is used to find root width of a buttress thread?

- A) 0.125 x pitch B) 0.5 x pitch
 C) 0.317 x pitch D) 0.335 x pitch

Answer: A) 0.125 x pitch

8. Which type of trapezoidal thread is used in places there motion is to be transmitted between shafts at right angle?

- A) Acme thread B) Saw-tooth thread
 C) Buttress thread D) Worm thread

Answer: D) Worm thread

9. What is the relationship between pitch and lead of a single start thread?

- A) Lead is equal to pitch B) Lead is half the pitch
 C) Lead is twice the pitch D) Lead is 1/4 pitch

Answer: A) Lead is equal to pitch

10. What is the formula used to find flat width of a buttress thread?

- A) Pitch/8 B) Pitch/3
 C) Pitch/4 D) Pitch/2

Answer: A) Pitch/8

11. Which thread has only one helical formation?

- A) Triple start B) Single start
 C) Quadruple D) Double start

Answer: B) Single start

12. Which parameter will decide the driver and driven gear ratio to cut thread on lathe?

- A) Pitch B) Major dia of work
 C) Root dia of work D) Angle of thread

Answer: A) Pitch

13. What type of thread is used in screw jack machine?

- A) Acme thread B) Square thread
 C) Buttress thread D) V-thread

Answer: B) Square thread

14. What is the depth of 0.5 inch BSW 13TPI single start thread?

- A) 0.082" B) 0.038"
 C) 0.049" D) 0.025"

Answer: C) 0.049"

15. What is the purpose of idler gear in simple gear train?

- A) Reduce spindle speed B) Reduce gear ratio
 C) Increase spindle speed D) Transmit power between driver and driven gears

Answer: D) Transmit power between driver and driven gears

16. What is the lead of M 10 x 1.5 double start thread?

- A) 3 mm
- B) 3.5 mm
- C) 2 mm
- D) 4 mm

Answer: A) 3 mm

17. What is the term the distance from a point on thread to the corresponding point on next thread?

- A) Effective diameter
- B) Minor diameter
- C) Pitch
- D) Depth

Answer: C) Pitch

18. How much angle is to be added for lead angle of a square thread as clearance to the helix angle?

- A) 1 Degree 30 Minutes
- B) 1 Degree 50 Minutes
- C) 1 Degree 55 Minutes
- D) 1 Degree 45 Minutes

Answer: A) 1 Degree 30 Minutes

19. What is the advantage of using idler gear in simple gear train?

- A) Change the speed
- B) Easy to engage
- C) Does not affect gear ratio
- D) Affect gear ratio

Answer: C) Does not affect gear ratio

20. What is the relation between pitch and lead in multistart thread?

- A) Lead = Pitch
- B) Lead = $1/3 \times$ pitch
- C) Lead = $1/2$ pitch
- D) Lead = No. start \times pitch

Answer: D) Lead = No. start \times pitch

21. Which type of thread have higher mechanical advantage?

- A) Acme thread
- B) Square thread
- C) Buttress thread
- D) V- thread

Answer: B) Square thread

22. Calculate the change gear to cut 6 mm pitch on a work having a lead screw of 5 mm pitch. Gears available from 20 to 120 teeth by 5 teeth range.

- A) Driver 85 teeth driven 60 teeth
- B) Driver 60 driven 50
- C) Driver 40 driven 20
- D) Driver 100 teeth driven 25 teeth

Answer: B) Driver 60 driven 50

23. Calculate pitch diameter of f 24 x 3 mm square thread?

- A) 21.5 mm
- B) 24 mm
- C) 21 mm
- D) 22.5 mm

Answer: D) 22.5 mm

24. Calculate the flat width of 10 mm pitch buttress thread?

- A) 1.25 mm
- B) 4.25 mm
- C) 2.25 mm
- D) 3.25 mm

Answer: A) 1.25 mm

25. What is the lead of M 24 x 3.5 triple start thread?

- A) 8.5 mm
- B) 12.8 mm
- C) 3.5 mm
- D) 10.5 mm

Answer: D) 10.5 mm

26. What is the ratio between the pitch diameter and number of teeth of gear?

- A) Dedendum
- B) Tooth thickness
- C) Addendum
- D) Module

Answer: D) Module

27. What is the included angle of acme thread?

- A) 29 Degree
- B) 30 Degree
- C) 55 Degree
- D) 45 Degree

Answer: A) 29 Degree

28. What will be the effect in helix angle if diameter changes for a given lead?

- A) No change in helix angle if diameter increases
- B) Diameters decreases helix angle decreases
- C) No change in helix angle if diameter decreases
- D) Diameters decreases helix angle increases

Answer: D) Diameters decreases helix angle increases

29. What is the shape of buttress thread flank?

- A) One flank is 60 Degree and the other 45 Degree
- B) One flank is 30 Degree and the other 45 Degree
- C) Two flanks are at 60 Degree
- D) One flank is 90 Degree and the other 45 Degree

Answer: D) One flank is 90 Degree and the other 45 Degree

30. Which of the following used buttress thread?

- A) General purpose nut and bolt
- B) Carpentry vice
- C) Lead screw of lathe
- D) Screw jack

Answer: B) Carpentry vice

31. Which method of multi-start thread cutting is depends upon the graduations marked on the dial and the number of teeth in worm wheel?

- A) Method by moving the top slide
- B) Dividing the first drive method
- C) Thread chasing dial method
- D) Method using slotted face plate

Answer: C) Thread chasing dial method

32. What is the name of last member in a simple gear train?

- A) Driver
- B) Idler
- C) Driven
- D) Reversing gear

Answer: C) Driven

33. Which formula is used to find crest width of a buttress thread?

- A) $0.125 \times \text{pitch}$ B) $0.317 \times \text{pitch}$
C) $0.5 \times \text{pitch}$ D) $0.335 \times \text{pitch}$

Answer: A) 0.125 x pitch

34. What is the term of thread the advancement of mating part in one complete rotation?

- A) Pitch B) Lead
C) Helix angle D) Depth

Answer: B) Lead

35. What does BIS stands for?

- A) Bureau of Indian Society B) Bureau of International Society
C) Bureau of Indian Standard D) Bureau of International Standard

Answer: C) Bureau of Indian Standard

36. What is the purpose of change gear train in centre lathe?

- A) Connecting spindle gear to fixed stud gear B) Connecting quick change gear box to lead screw
C) Connecting fixed stud gear to quick change gear box D) Connecting lead screw to changing dial

Answer: C) Connecting fixed stud gear to quick change gear box

37. What is the gear ratio if the lathe constant value is one?

- A) Six B) Three
C) Two D) One

Answer: D) One

38. Which part of a lathe is used to catch thread quickly?

- A) Top slide B) Tool post
C) Chasing dial D) Cross - slide

Answer: C) Chasing dial

39. How many number of teeth gear is used to as translating gear to cut metric thread on British lathe?

- A) 135 B) 100
C) 140 D) 127

Answer: D) 127

40. Calculate the depth of buttress thread 60 mm diameter and 9 mm pitch?

- A) 4.75 mm B) 6.75 mm
C) 5.75 mm D) 7.75 mm

Answer: B) 6.75 mm

41. Calculate the depth of buttress thread diameter 30 mm pitch 3 mm?

- A) 3.00 mm B) 1.25 mm
C) 2.25 mm D) 1.5 mm

Answer: C) 2.25 mm

42. What is the name of first member in a simple gear train?

- A) Idler B) Driven
C) Reversible gear D) Driver

Answer: D) Driver

43. What will be the effect in helix angle if lead changes for a give diameter work?

- A) Helix angle have no change when lead increases B) Lead decreases helix angle decreases
C) Helix angle have no change when lead decreases D) Lead decreases helix angle increases

Answer: B) Lead decreases helix angle decreases

44. Calculate change gears to cut a three start thread having a pitch of 1.5 mm; the lead screw has a pitch of 6 mm.

- A) Driver 30 teeth, Driven 70 teeth B) Driver 50 teeth, Driven 100 teeth
C) Driver 45 teeth, Driven 60 teeth D) Driver 60 teeth, Driven 50 teeth

Answer: C) Driver 45 teeth, Driven 60 teeth

45. Which formula to be used to find depth of buttress thread?

- A) $0.6403 \times \text{pitch}$ B) $0.5 \times \text{pitch}$
C) $0.75 \times \text{pitch}$ D) $0.6134 \times \text{pitch}$

Answer: C) 0.75 x pitch

46. What is the formula to calculate the core dia of the square thread?

- A) Major dia - Depth of thread B) Major dia - 2 x depth
C) Major dia - minor dia D) Major dia - Pitch dia

Answer: B) Major dia - 2 x depth

47. Which type of thread is used in lathe head screw?

- A) Square thread B) Knuckle thread
C) Buttress thread D) Acme thread

Answer: D) Acme thread

48. What is the nose cutter width of the square threads tool?

- A) $\text{Pitch} / 0.5$ B) $2 \times \text{Pitch}$
C) $0.5 \times \text{Pitch}$ D) equal to pitch

Answer: C) 0.5 x Pitch

49. Find the lead of a 2 start thread having pitch 1.5 mm?

- A) 6.00 mm B) 4.50 mm
C) 1.50 mm D) 3.00 mm

Answer: D) 3.00 mm

50. Calculate pitch diameter of M16 x 2 mm square thread?

A) 15 mm

B) 15.5 mm

C) 16 mm

D) 14 mm

Answer: A) 15 mm
