

PSC Turner - State Water Transport Examination Previous Year Question Paper

Exam Name: Turner - State Water Transport

Date of Test : 18.08.2015

Question Paper Code: 153/2015

Medium of Questions: English



153/2015

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. The vernier bevel protractor is able to read the angle to an accuracy of _____ degrees.

(A) 1°	(B) $\frac{1^\circ}{2}$
(C) $\frac{1^\circ}{12}$	(D) $\frac{11^\circ}{12}$
2. _____ method is used in mass production for producing a small length of taper where accuracy is not the criterion.

(A) Form Tool	(B) Tail Stock Offset
(C) Swivelling Compound rest	(D) None of these
3. In tailstock offset taper turning method, the amount of offset is found by the formula :

(A) $\frac{(D-d) \times l}{2L}$	(B) $\frac{(D-d)}{2l}$
(C) $\frac{(D-d)}{L}$	(D) $\frac{(D-d) \times L}{2l}$
4. Length of a file is the distance from the _____ of a file to the _____ :

(A) Tip – Heal	(B) Tip – shoulder
(C) Edge – Tang	(D) Edge – Heal
5. Multi start threads are used :

(A) When alternating loads have to be transmitted	(B) To achieve a small amount of friction at the flanks of the thread
(C) To achieve a great axial movement with small rotory motion	(D) To achieve a small axial movement with a great rotory motion
6. Quenching is a process to :

(A) Stress relieve	(B) Wash
(C) Increase strength	(D) Harden

7. The reading accuracy of the steel rule is _____ mm.
(A) 5 (B) 0.5
(C) 0.05 (D) 0.005
8. The accuracy of measurement by a try square is about _____ mm per 10mm length.
(A) 0.001 (B) 0.02
(C) 0.2 (D) 0.002
9. _____ Calipers are used for marking and layout work.
(A) Inside Calipers (B) Vernier Calipers
(C) Oddleg Calipers (D) Outside Calipers
10. Increase of carbon content in steel results in proportional :
(A) Reduction of strength (B) Increase in hardness
(C) Increase in strength (D) Increase in ductility
11. _____ Chisels are used for separating metals after chain drilling.
(A) Cold (B) Flat
(C) Crosscut (D) Web
12. _____ is used to remove drills and sockets from the machine spindle.
(A) Arbor (B) Drift
(C) Hammer (D) Chisel
13. Drills are provided with five different sizes of morse tapers and are numbered from :
(A) MT 1 to MT 5 (B) MT 0 to MT 4
(C) MT 2 to MT 6 (D) MT 3 to MT 7
14. _____ can be used for different types of work, like layout work, measurement and checking of angles.
(A) Bevel Protractor (B) Vernier Height Gauge
(C) Combination Set (D) Surface Gauge
15. Sensitive drilling machine is capable of drilling holes upto _____ mm diameter.
(A) 10 (B) 12.5
(C) 12 (D) 13

16. Cutting speed is also sometimes stated as :
(A) Surface Speed (B) Spindle Speed
(C) Uniform Speed (D) None of these
17. In the equation $V = \frac{\pi dn}{1000}$, the unit of d is in :
(A) cm (B) m
(C) foot (D) mm
18. Cutting speed for drilling cast iron with HSS tool is _____ m per minute.
(A) 25 – 40 (B) 20 – 35
(C) 35 – 45 (D) 20 – 30
19. In a vernier caliper having 49 main scale divisions divided into 50 in the vernier scale, the value of 1 VSD will be _____ mm.
(A) 0.02 (B) 0.05
(C) 0.98 (D) 0.1
20. Angle plates are available in _____ grades.
(A) 5 (B) 2
(C) 10 (D) 3
21. The point angle of a general purpose drill is :
(A) 118° (B) 115°
(C) 116° (D) 120°
22. According to Indian Standard, _____ types of drills are used for drilling various metals.
(A) two (B) five
(C) four (D) three
23. In drilling, unequal length of the cutting edges of a drill produce :
(A) Rough holes (B) Overheated drills
(C) Oversized holes (D) Split webs or broken drills
24. _____ is an operation of bevelling the end of a drilled hole.
(A) Counter boring (B) Counter sinking
(C) Spot facing (D) None of these

25. A _____ is a ridge of uniform section formed helically on the surface of a cylindrical body.
- (A) Taper (B) Knurling
(C) Radius (D) Screw thread
26. The diameter of the thread at which the thread thickness is equal to one-half of the pitch is known as :
- (A) Effective diameter (B) Major diameter
(C) Minor diameter (D) Core diameter
27. In tap drill size calculation, minor diameter = :
- (A) Major diameter - depth (B) Major diameter + 2 × depth
(C) Major diameter - 2 × depth (D) $\frac{\text{Major diameter} + \text{depth}}{2}$
28. _____ are used to cut external threads on cylindrical work pieces.
- (A) Taps (B) Chasers
(C) Dies (D) Templates
29. Blank size for external threading $D =$:
- (A) $d + \frac{P}{10}$ (B) $\frac{d - P}{10}$
(C) $\frac{d + P}{10}$ (D) $d - \frac{P}{10}$
30. The property possessed by a material to resist sudden load that results during metal cutting is termed as :
- (A) Cold hardness (B) Toughness
(C) Hot hardness (D) Tenacity
31. _____ is a non-metallic tool material.
- (A) Ceramics (B) High carbon steel
(C) Stellites (D) Carbide
32. In a single point lathe tool, if the top or back rake angle is slopping down from the front towards the back of the tool, it is known as _____ rake angle.
- (A) Negative (B) Positive
(C) Zero (D) None of these

33. In _____ cutting, the cutting edge is parallel to the axis of the tool.
- (A) Oblique (B) Straight
(C) Angular (D) Orthogonal
34. _____ facing is done by feeding the tool from the centre of the work towards the periphery.
- (A) Rough (B) Spot
(C) Finish (D) None of these
35. Calculate the spindle speed to turn a cast iron rode of 7cm diameter, using HSS tool. Take cutting speed for cast iron is 22m/min :
- (A) 1000 rpm (B) 100 rpm
(C) 214 rpm (D) 317 rpm
36. Turning time can be calculated by using the formula time to turn $T = :$
- (A) $\frac{l \times n}{f \times n}$ (B) $\frac{l \times N}{f \times n}$
(C) $\frac{f \times N}{l \times n}$ (D) $\frac{f \times n}{l \times N}$
37. Soluble oil is added to water in the ratio of about :
- (A) 1:20 (B) 20:1
(C) 15:1 (D) 1:15
38. While turning in between centers, _____ centre is used to face the job.
- (A) revolving (B) pipe
(C) ball (D) half
39. _____ centre is used to support the end of the job where no counter sink hole is permitted.
- (A) Swivel V (B) Female
(C) Self driving live (D) Insert Type
40. In a four stepped cone pulley head stock with back gear, the number of speeds available is :
- (A) 4 (B) 16
(C) 8 (D) 6

41. Knurling operation is done at a spindle speed of _____ of the turning speed.
- (A) $\frac{1}{3}$ (B) $\frac{1}{2}$
(C) $\frac{1}{4}$ (D) same
42. _____ is used to change the direction of the feed of the tool for the same direction of rotation of the spindle.
- (A) Spindle gear (B) Tumbler gear unit
(C) Fixed stud gear (D) Apron mechanism.
43. Mass is a _____ quantity.
- (A) Fundamental (B) Derived
(C) SI (D) MKS
44. The tool signature is :
- (A) There is nothing like tool signature
(B) A numerical method of identification of tool
(C) The plan of tool
(D) The complete specification of tool.
45. 1 mile = _____ km.
- (A) 1609 km (B) 1.609 km
(C) 16.09 km (D) 160.9 km
46. $-40^{\circ}\text{C} = \text{_____ } ^{\circ}\text{F}$.
- (A) -40 (B) 40
(C) -80 (D) 80
47. $\sqrt{0.9} = :$
- (A) 3 (B) 0.3
(C) 0.949 (D) 0.03
48. If $A : B = 9 : 12$, $B : C = 8 : 10$ find $A : B : C :$
- (A) 9 : 12 : 10 (B) 3 : 4 : 5
(C) 9 : 8 : 10 (D) 9 : 20 : 10

49. Which one of the following is used to check an angle most precisely?
- (A) Sine bar (B) Universal Bevel Protractor
(C) Protractor (D) Combination Set
50. Volume of a hollow cylinder, $V =$ _____.
- (A) $\pi(R^2 + r^2)h$ (B) $\pi(R - r)h$
(C) $\pi(R + r)h$ (D) $\pi(R^2 - r^2)h$
51. Find the side of a square plot whose diagonal is equal to square root of 72 :
- (A) 36 (B) 18
(C) 6 (D) 9
52. Magnetism is a _____ property.
- (A) chemical (B) physical
(C) mechanical (D) electrical
53. The property by means of which a metal does not break on twisting or bending is _____ :
- (A) hardness (B) brittleness
(C) toughness (D) ductility
54. Which one of the following is a non ferrous metal?
- (A) Pig iron (B) Mild Steel
(C) Nickel (D) Aluminium
55. Medium carbon steel contains _____ % of carbon.
- (A) 0.15 to 0.25 (B) 0.1 to 0.2
(C) 0.5 to 1.5 (D) 0.25 to 0.5
56. Helix angle is formed on the :
- (A) Square thread job (B) Lathe bed
(C) Square threading tool (D) Taper Attachment
57. _____ steel is used for making precision measuring instruments.
- (A) Vanadium steel (B) Stainless steel
(C) Invar steel (D) Nickel steel

58. Gunmetal is an alloy of :
(A) Copper and Tin (B) Copper, Tin and Lead
(C) Copper, Tin and Zinc (D) Copper, Zinc and Lead
59. _____ material is used to make the heating element in electric iron, heater etc.
(A) Chrome (B) Nichrome
(C) Nickel (D) Copper
60. Purpose of heat treatment is :
(A) to soften the metal (B) to reduce brittleness
(C) to refine grain structure (D) all of the above
61. The quantity of matter contained in a substance is its :
(A) Weight (B) Specific weight
(C) Mass (D) Volume
62. _____ is an example for first order lever.
(A) Scissors (B) Nut cracker
(C) Forceps (D) Lemon squeezer
63. The unit for velocity ratio is :
(A) Kg-m (B) m
(C) no unit (D) Newton
64. Indicated horse power IHP = :
(A) BHP + FHP (B) BHP – FHP
(C) $\frac{\text{BHP} + \text{FHP}}{2}$ (D) None of these
65. The energy of a body possesses because its motion is called _____ energy.
(A) Potential (B) Kinetic
(C) Frictional (D) Wind
66. The ratio of stress to strain within elastic limit is called :
(A) Hook's law (B) Factor of safety
(C) Modulus of rigidity (D) Young's modulus

67. _____ is a vector quantity.
- (A) Length (B) Mass
(C) Speed (D) Velocity
68. Melting point of ice is _____ °C.
- (A) 0 (B) 13
(C) 10 (D) 18
69. If an iron rod is heated at one end, heat is transmitted to the other end by :
- (A) Convection (B) Radiation
(C) Conduction (D) None of these
70. The roughness value Ra of N6 is :
- (A) 0.05 (B) 0.8
(C) 0.1 (D) 0.3
71. The cutting speed of carbide tipped tool as compared to high speed steel is :
- (A) 10 times as great (B) 7 times as great
(C) 5 times as great (D) 3 times as great
72. While boring, the cutting speed used is :
- (A) more than external turning (B) three-fourth of the external turning
(C) the same for external turning (D) half the external turning
73. The width of tool used for cutting 5 mm pitch square thread is :
- (A) 5 mm (B) 3.5 mm
(C) 2 mm (D) 2.5 mm
74. The rake angle of form tool for form turning is :
- (A) zero (B) positive
(C) negative (D) high positive
75. The work holding device for concentric machining of outside diameter of work piece with finished bores is :
- (A) Collet (B) Face plate fixture
(C) Mandrels (D) Three jaw chuck

76. Self holding tapers have a low taper angle, limited to maximum of :
(A) 20° (B) 10°
(C) 15° (D) 5°
77. Which one of the following machine reamers does not have the shank as an integral part of the reamer?
(A) Rose reamer (B) Chucking reamer
(C) Shell reamer (D) Machine jig reamer
78. A work piece is to be manufactured with minimum dimension of 60 mm and a tolerance of 0.02. Which of the following specification is correct?
(A) $60^{-0.02}$ (B) $60^{+0.02}$
(C) $60^{+0.1}$ (D) $60^{\pm 0.02}$
79. Increased lip clearance angle of drill results in :
(A) Weak cutting edge (B) Rough hole surface
(C) Poor wedging action (D) Increase point angle
80. The taper ratio of the Brown and Sharp taper BS 1 to BS 18 except number 10 is :
(A) 1 in 15 (B) 1 in 20
(C) 1 in 24 (D) 1 in 18
81. The Yachana Yathra led by V T Bhattathiripad lasted for how many days?
(A) 6 (B) 7
(C) 8 (D) 10
82. Name the district of Kerala which shares its border with both TamilNadu and Karnataka :
(A) Wayanad (B) Kozhikode
(C) Palakkad (D) Malappuram
83. Which day is celebrated as the World Forestry Day?
(A) April 22 (B) April 1
(C) March 21 (D) March 2
84. The work written by Brahmananda Sivayogi :
(A) Kerala Kaumudi (B) Samatva Samajam
(C) Arulnol (D) Moksha Pradipam

85. The 'Kochi Pulaya Maha Sabha' was founded under the leadership of :
(A) Vagabhadananda (B) Ayyankali
(C) K.P.Karuppan (D) Chattampi Swamikal
86. The 'Iron Man of India' is :
(A) Sardar Vallabhai Patel (B) Dr. B.R. Ambedkar
(C) V.P. Menon (D) Jawaharlal Nehru
87. In the year 2014, the prestigious Bharat Ratna Award was conferred to :
(A) Sachin Tendulkar (B) Prof. Amartya Sen
(C) Pt. Bhimen Joshi (D) Atal Bihari Vajpaye
88. The year in which Ezhava Memorial was submitted to the ruler of Travancore :
(A) 1890 (B) 1896
(C) 1897 (D) 1892
89. The first Eco-tourism project in India :
(A) Tenmala (B) Silent Valley
(C) Kurtalam (D) Kurvadeep
90. The Editor of the journal 'YOUNG INDIA' :
(A) Nehru (B) Gandhiji
(C) Lalalajpat Rai (D) Gopalakrishna Ghokhale
91. Name the person who initiated the social reform movement among Nairs :
(A) Mannathu Padmanabhan (B) V.T. Bhattathiripad
(C) Chattampi Swamikal (D) Narayana Panikkar
92. When did Gandhiji begin the Dandi March?
(A) 1932 (B) 1931
(C) 1929 (D) 1930
93. The famous temple which lies in the valley of the Brahmagiri peak :
(A) Sringeri temple (B) Sivagiri temple
(C) Tirunelli temple (D) Sabarimala temple

94. Name the person who formulated the word 'LOKPAL' :
- (A) LM Singhvi (B) Anna Hassare
(C) Aravind Kejriwal (D) Kiran Bedi
95. The Indian National Movement which became popular during the first World War :
- (A) Home Rule Movement (B) Quit India Movement
(C) Jallianwallah Bagh Tragedy (D) Khilafat Movement
96. Name the two mountain passes on the North-west boarder of India :
- (A) The Himalayas (B) Khyber and Bolan passes
(C) The Vindhyas and Satpuras (D) North and South Western Ranges
97. The Chairman of the Planning Commission :
- (A) The President of India (B) The Prime Minister of India
(C) The Judge of the Supreme Court (D) The Home Minister of India
98. Name the River in Kerala which was once known as the 'English Channel of India' :
- (A) Mayyazhipuzha (Mahe River) (B) Bharathapuzha
(C) Pamba (D) Periyar
99. In the 35th National Games who won the Gold Medal for 10,000 mtr race :
- (A) Preeja Sreedharan (B) Tintu Luka
(C) O.P. Jaisha (D) V. Shanthini
100. The 'Cannes Award' is given for excellence in which field?
- (A) Drama (B) Music
(C) Dance (D) Films