

1.  $4\frac{1}{2} \times 2\frac{3}{4} + 5\frac{1}{4} = ?$   
A]  $17\frac{5}{8}$       B]  $18\frac{7}{8}$       C] 36      D]  $18\frac{5}{8}$
2. Find the sum of the first 20 odd counting numbers  
A] 20      B] 100      C] 400      D] 313
3. Suresh purchased an article at 20 % discount on its marked price. He earned 25 % profit on selling it for Rs.125.What was the marked price?  
A] Rs.112      B] Rs.125      C] Rs110      D] None of these
4. In the following series, what comes in the place of (?) 1, 3, 5, 9, 11, 13, 17, ?  
A] 23      B] 25      C] 19      D] 21
5. Three of the following four are alike in a certain way. Find the odd one.  
A] 26Z      B] 24X      C] 9I      D] 20S
6. The sum of two digits of a numbers is 9.If the digits are reversed, the numbers is increased by 63. Find the number.  
A] 18      B] 27      C] 36      D] 72
7. The difference between the present ages of Kiran and Jayesh is 6 years. The ratio between their ages after 4 years will be 3: 4.What is the present age of Jayesh?  
A] 14 years      B] 18 years      C] 20 years      D] 24 years
8. A boy was asked to multiply a certain number by 53. He multiplied it by 35 and got his answer less than the correct one by 1206.Find the number to be multiplied.  
A] 65      B] 67      C] 53      D] 76
9. If Sun is called hen, hen is called pond, pond is called joy, joy is called mute, and mute is called noise, what rises in the East?  
A] Joy      B] Pond      C] Hen      D] Noise
10. Average of 6 nos. is 30. If the average of first four is 25 and that of last three is 35, the fourth number is:  
A] 25      B] 30      C] 35      D] Data Inadequate.

11. What number should be subtracted from both the terms of the fraction  $\frac{15}{19}$  so as to make it as ratio of 3 : 4.
- A] 3            B] 5            C] 6            D] 9
12. In a row, Raju is 7th from left and Manju is 12th from right. If they interchange their Positions, Raju becomes 22nd from left. How many students are there in the row?
- A] 19            B] 31            C] 33            D] 34
13. Is SAT is coded as WCX, NET is coded as ZHX, RAGE is coded as YCMH. How will "STRANGERS" be coded?
- A] WXYZCMHYW            B] WXZYCMHYW  
C] WXYCZMHYW            D] WZXYMCHYW
14. In library 40% books are English, 80% of the remaining are in Hindi & the remaining 240 are in various other regional languages. What is the total number of books in the library?
- A] 600            B] 1000            C] 2000            D] 1600
15. If 25% of a number is subtracted from a second number, the second number reduces to its  $\frac{5}{6}$ . What is the ratio between the first number and second number?
- A] 2:3            B] 3:2            C] 1:3            D] Data inadequate
16. Petrol pump owner mixed the leaded and unleaded petrol in such away that the mixture contains 10% unleaded petrol. What quantity of leaded petrol should be added to one liter mixture so that the percentage of unleaded petrol becomes 5%?
- A] 1000ml    B] 900ml    C] 1100ml    D] 1800ml
17. If  $2x+y =17$ ;  $y+2z =15$  ;  $x + z =9$ . Then what is the value of  $4x+3y+z =?$
- A] 41            B] 43            C] 50            D] 45
18. A 270 meters long train running at the speed of 120 kmph crosses another train running in opposite direction at the speed of 80 kmph in 9 seconds. What is the length of the other train?
- A] 240m            B] 320m            C] 260m            D] 230m

19. A man is watching from the top of a tower, a boat speeding away from the tower. The boat makes an angle of depression of  $45^\circ$  with the man's eye when at a distance of 60m from the tower. After five seconds the angle of depression becomes  $30^\circ$ . What is the approximate speed of the boat, assuming it is running in still water.
- A] 32kmph   B] 42kmph   C] 38kmph   D] 36kmph
20. If + means  $\times$ ,  $\times$  means  $-$ ,  $-$  means  $\div$ ,  $\div$  means  $+$  then,  $8 - 4 \div 9 \times 3 + 1 = ?$
- A] 11          B] 13          C] 18          D] 08
21. If a rectangular space 8 cm long and 6 cm wide is increased in its length and width by 25%, then what will be the percentage increase in the area of original rectangular space?
- A] 60          B] 56          C]  $60\frac{1}{4}$           D]  $56\frac{1}{4}$
22. If one-fourth of two-fifth of a number is 36. What is the number?
- A] 240          B] 720          C] 360          D] None of these
23. Find the number of lead balls, each 1 cm. In diameter that can be made from a sphere of radius of 6 cm.
- A] 48          B] 8          C] 216          D] 1728
24. You are standing with the sun rising towards your right. You turn around ( $180^\circ$ ). Walk for a while and then turn to your left. Which direction are you facing now?
- A] South      B] North      C] East      D] West
25. A number when divided by 32 leaves the remainder 29. This number when divided by 8 will leave a remainder of
- A] 3          B] 5          C] 7          D] 29
26. Two cylindrical buckets have their diameters in the ratio 3:1 and their heights are as 1:3. Their volumes are in the ratio of
- A] 1:2          B] 2:3          C] 3:1          D] 1:1
27. A man travels for 5 hrs 15 min. If, he covers first half of the journey at 60kmph and the rest at 45 kmph. Find the total distance traveled by him.
- A] 270          B] 577          C] 350          D] 420

28. A certain sum earns simple interest of Rs. 600 in 2 years at a certain rate of interest. If the same sum earns compound interest of Rs. 645 in the same period of 2 years, what must be the rate of interest?

A] 5% p.a. B] 10% p.a. C] 12.5% p.a. D] 15% p.a.

29. 10 men can complete a piece of work in 15 days and 15 women can complete the same work in 12 days. If all the 10 men and 15 women work together, in how many days they will complete the work?

A] 6 B]  $7\frac{2}{3}$  C]  $6\frac{2}{3}$  D]  $6\frac{1}{3}$

30. Mahesh is taller than Suresh. Anil is taller than Mahesh. Puneet is tallest of all. Ramesh is taller than Anil. If they stand according to their height, who will be exactly in the middle?

A] Mahesh B] Anil C] Ramesh D] Suresh

31. By which of the following the resistance to fatigue of a material is measured?

A] Endurance Limit B] Ultimate tensile strength  
C] Young's Modulus D] Elastic Limit

32. By addition of which of the metals, shock resistance of steel is increased?

A] Chromium B] Nickel  
C] Chromium & Nickel D] Cobalt & Molybdenum

33. What is the function of a Washer?

A] It absorbs Shock & Vibrations B] It provides a bearing area.  
C] It acts as a locking device. D] It provides cushioning effect.

34. Which of the following is used to transmit a highly reduced velocity ratio in a limited space?

A] Helical gears B] Bevel gears  
C] Herringbone gears D] Worm & worm wheel.

35. If a machine member is subjected to a Tensile stress ( $\sigma_t$ ) due to direct load or bending & a shear stress ( $\tau$ ) due to Torsion, then the maximum shear stress induced in the member will be

A]  $\sqrt{\sigma_t^2 + 2\tau^2}$  B]  $\sqrt{\sigma_t^2 + 3\tau^2}$   
C]  $1/2 (\sqrt{\sigma_t^2 + 4\tau^2})$  D]  $1/2 (\sqrt{\sigma_t^2 - 4\tau^2})$









71. The material which exhibit the same elastic properties in all directions are called

- A] homogeneous                      B] inelastic  
C] isotropic                              D] isentropic

72. \_\_\_\_\_, FIT, FUNCTION are the fundamentals of good product design.

- A] FACE    B] FORM    C] FRAME    D] FRICTION

73. Name the science which deals with the measurement of human external body dimensions in static & dynamic conditions

- A] Ergonomics    B] Anatomy    C] Anthropometry    D] Eurology

74. What does 'F' in FRP stand for?

- A] Filament    B] Fragment    C] Fiber    D] Filler

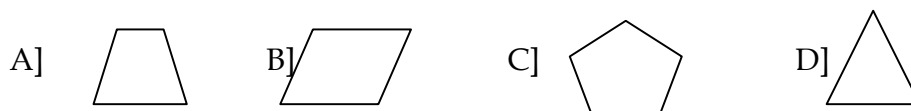
75. Find the ODD word between the Elements of Design

- A] POINT    B] LINE    C] FORM    D] SQUARE

76. What is 'Study of Work' or 'Natural Laws of work' termed as ?

- A] Workability    B] Ergonomics    C] Anthropometry    D] Work Ethics

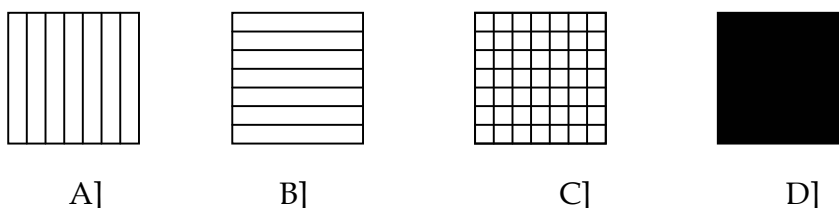
77. Which of the following forms is structurally most stable?





78. Which is the best Process to manufacture Low Volume Products having complex profiles

- A] Injection Moulding                      B] Transfer Moulding  
C] Thermoforming                          D] Roto moulding

79. Which of the following 'LOOKS' taller?



80. If  Depicts LOVE  Depicts ANGER

How will you depict CONFUSION?

- A]  B]  C]  D] 

81. On which side of the machining symbol, do we specify the value of machining allowance?

- A] Top side B] Bottom side C] Left side D] Right side

82. Which values are usually expressed as Ra value?

- A] Surface texture B] Surface finish C] Machining symbol D] Surface roughness

83. What is the meaning of the following welding symbol?



- A] Fillet weld B] V butt weld C] J butt weld D] Single - bevel butt weld

84. Which coupling is used to connect two parallel shafts, whose axes are at a small distance apart?

- A] Universal coupling B] Oldham coupling  
C] Claw coupling D] muff coupling

85. A taper sunk key has a standard taper of ,

- A] 1:10 B] 1:50 C] 1:100 D] 1:20

86. If three mutually perpendicular planes are intersecting each other, then geometry at intersection of three planes will be a\_

- A] Line B] Point C] Triangle D] None of these

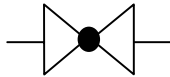
87. What is the sheet size of an A2 drawing sheet ISO-A series

- A] 420 X 594 B] 420 X 891 C] 594 X 841 D] 297 X 420

88. What is the description of the following Specification for a bolt size, M16x4.

- A. Core diameter-16, 4 threads.
- B. Major diameter-16, Depth-4
- C. Major diameter-16, Pitch-4
- D. Core diameter-16, Pitch-4

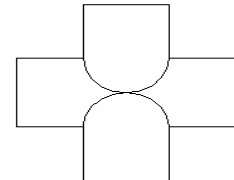
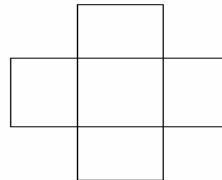
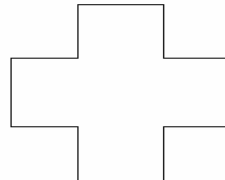
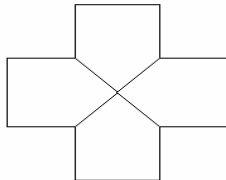
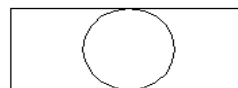
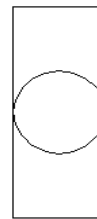
89. The following symbol represents,



- A] Gate Valve
- B] Globe valve
- C] Butterfly valve
- D] Ball valve

90. Find out the missing view,

?



A

B

C

D

91. In first angle projection method,

- A] The plane comes between the object and the observer.
- B] The object comes above the plane and the observer.
- C] The observer comes between the plane and the object.
- D] The object comes between the observer and the plane

92. The weld symbol shown in the figure represents which type of weld?

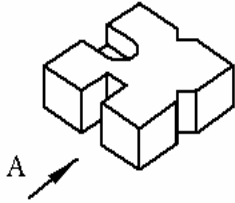


- A] Spot weld
- B] Seam weld
- C] Plug weld
- D] Fillet weld

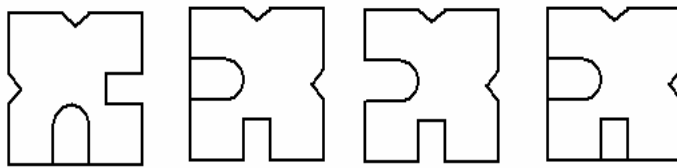
93. What is Solid modeling?

- A] Generation of 3D model
- B] Generating g a solid prototype
- C] Generation of tool path
- D] Automatic drawing Generation

94.



What will be the **Top view** of the given object if viewed from given direction 'A'?

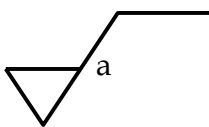


- A]
- B]
- C]
- D]

95. If we cut a cylinder by a plane parallel to it axis what will be its sectional view?

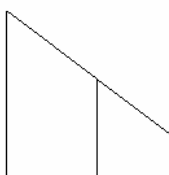
- A] Triangular
- B] Rectangular
- C] Circular
- D] Oval

96. In given surface texture symbol, what 'a' represents?



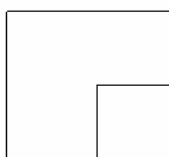
- A] Machining method
- B] Machining allowance
- C] Roughness value
- D] Direction of lay

97.

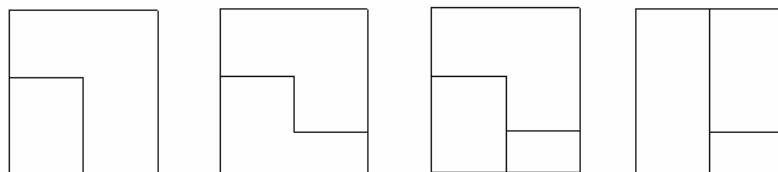


F.V.

Two views of an object are given.  
(First angle method)  
Find out right hand side view?

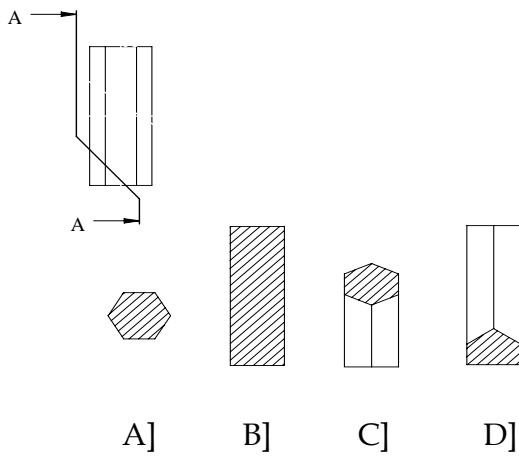


T. V.

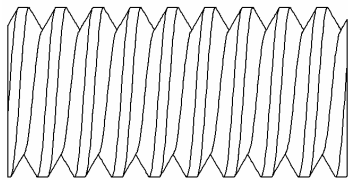


- A)
- B)
- C)
- D)

98. Find out appropriate sectional view if a section plane AA cuts the shown object

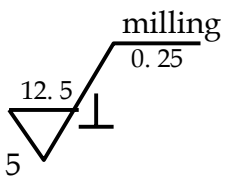


99. In fig. shown which type of thread is drawn?



- A] Left hand V thread
- B] Right hand V thread
- C] Left hand square thread
- D] Right hand square thread

100. In given surface texture symbol, which is the 'sampling length'?



- A] 5
- B] 0.25
- C] 12.5
- D] none of above