

UPPCL (JE) 2016

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| <p>1. A candidate attempted 12 questions and secured full marks in all of them. If he obtained 60% marks in the test and all questions carried equal marks, then what is the number of questions in the test?
(A) 36 (B) 30
(C) 25 (D) 20</p> <p>2. A cuboid has six sides of different colours. The red side is opposite to black. The blue side is adjacent to white. The brown side is adjacent to blue. The red side is face down. Which one of the following would be the opposite to brown?
(A) Red (B) Black
(C) White (D) Blue</p> <p>3. A man fills a basket with eggs in such a way that the number of eggs added on each successive day is the same as the number already present in the basket. This way the basket gets completely filled in 24 days. After how many days the basket was 1/4th filled?
(A) 6 (B) 12
(C) 17 (D) 22</p> <p>4. A person traveled a distance of 50 km in 8 hours. He covered a part of the distance on foot at the rate of 4 km per hour and a part on a bicycle at the rate of 10 km per hour. How much distance (in km) did he travel on foot?
(A) 10 (B) 20
(C) 30 (D) 40</p> <p>5. Six books labeled as A, B, C, D, E and F, are placed side by side. Books B, C, E and F have green covers while others have yellow covers. Books A, B and D are new while the rest are old volumes. Books A, B and C are law reports while the rest are medical extracts. Which two books are old medical extracts and have green covers?
(A) B and C (B) E and F
(C) C and E (D) C and F</p> <p>6. Half of the villagers of a certain village have their own houses. One - fifth of the villagers cultivate paddy. One - third of the villagers are literate. Four - fifth of the villagers are below twenty five. Then, which one of the following is certainly true?
(A) All the villagers who have their own houses are literate.</p> | <p>(B) Some villagers under twenty five are literate.</p> <p>(C) A quarter of the villagers who have their own houses cultivate paddy.</p> <p>(D) Half of the villagers who cultivate paddy are literate.</p> <p>7. Assume that the hour and minute hands of a clock move without jerking. The clock shows a time between 8 o'clock and 9 o'clock. The two hands of the clock are one above the other. After how many minutes (nearest integer) will the two hands be again lying one above the other?
(A) 60 (B) 62
(C) 65 (D) 67</p> <p>8. "Price is not the same thing as value. Suppose that on a day the price of everything viz., coal, bread, postage stamps, a day's labour, the rent of houses, etc. were to double. Prices then would certainly rise, but values of all things except one would not." The writer wants to say that if prices of all things were doubled, then
(A) The values of all things would remain constant.
(B) The values of the things sold would be doubled.
(C) The values of the things bought would be halved.
(D) The value of money only would be halved.</p> <p>9. The average temperature for Wednesday, Thursday and Friday was 40 °C. The average for Thursday, Friday and Saturday was 41 °C. If temperature on Saturday was 42°C, what was the temperature on Wednesday?
(A) 39° C (B) 44° C
(C) 38° C (D) 41° C</p> <p>10. A person has 4 coins each of different denominations, say Rupee 1, 2, 5 and 10. What is the number of different sums of money the person can form (using one or more coins at a time)?
(A) 6 (B) 15
(C) 12 (D) 11</p> <p>11. (A) Find the 15th term of the sequence 20, 15 10.....
(A) -45 (B) -55
(C) -50 (D) 0</p> |
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12. On what dates of April, 2001 did Wednesday fall?
 (A) 1st, 8th, 15th, 22nd, 29th
 (B) 2nd, 9th, 16th, 23rd, 30th
 (C) 3rd, 10th, 17th, 24th
 (D) 4th, 11th, 18th, 25th
13. Two trains running in opposite directions cross a man standing on the platform in 27 seconds and 17 seconds respectively and they cross each other in 23 seconds. The ratio of their speeds is:
 (A) 1:3 (B)3:2
 (C) 3:4 (D) None of these
14. A train passes a station platform in 36 seconds and a man standing on the platform in 20 seconds. If the speed of the train is 54 km/hr, what is the length of the platform?
 (A) 120m (B)240 m
 (C) 300 m (D) None of these
15. What is the least square number of soldiers that can be drawn up in troops of 12,15,18 and 20 soldiers?
 (A) 900 (B)400
 (C) 1600 (D) 2500
16. Find the remainder when $73 \times 75 \times 78 \times 57 \times 197 \times 37$ is divided by.
 (A) 32 (B)30
 (C) 15 (D) 28
17. The average weight of 8 persons increases by 5 hg. when a new person comes in place of one of them, weighing 65 kg. What might be the weight of new person?
 (A) 76 kg (B)76.5 kg
 (C) 85 kg (D) None of these
18. The sum of the two digits of a number is 10. If the number is subtracted from the number obtained by reversing its digits, the result is 5(D) Find the number?
 (A) 34 (B)28
 (C) 12 (D) 17
19. As per the agreement with a bank, a businessman had to refund a loan in some equal installments without interest. After paying 18 installments he found that 60 percent of his loan was refunded. How many installments were there in the agreement?
 (A) 22 (B)24
 (C) 30 (D) 33
20. A family consists of two grandparents, two parents and three grandchildren. The average age of the grandparents is 67 years, that of the parents is 35 years and that of the grandchildren is 6 years. what is the average age of the family?
 (A) $28\frac{4}{7}$ years
 (B) $31\frac{5}{7}$ years
 (C) $32\frac{1}{7}$ years
 (D) None of these
21. A, B and C can do a piece of work in 20, 30 and 60 days respectively. In how many days can A do the work if he is assisted by B and C on every third day?
 (A) 12 days (B)15 days
 (C) 16 days (D) 18 days
22. In how many different ways can the letters of the word 'LEADING' be arranged in such a way that the vowels always come together?
 (A) 360 (B)480
 (C) 720 (D) None of these
23. Machine P can print one lakh books in 8 hours, machine Q can print the same number of books in 10 hours while machine R can print them in 12 hours. All the machines are started at 9 A.M. while machine P is closed at 11 A.M. and the remaining two machines complete work. Approximately at what time will the work (to print one lakh books) be finished?
 (A) 11:30 A.M. (B)12 noon
 (C) 12:30 P.M. (D) 1:00 P.M.
24. A, B and C start at the same time in the same direction to run around a circular stadium. A completes a round in 252 seconds, B in 308 seconds and c in 198 seconds, all starting at the same point. After what time will they again meet at the starting point ?
 (A) 26 minutes and 18 seconds
 (B) 42 minutes and 36 seconds
 (C) 45 minutes
 (D) 46 minutes and 12 seconds
25. What will be the least number which, when doubled will be exactly divisible by 12,18,21 and 30 ?
 (A) 196 (B)630
 (C) 1260 (D) 2520
26. If $3\sqrt{5} + \sqrt{125} = 17.88$, then what will be the value of $\sqrt{80} + 6\sqrt{5}$?
 (A) 1(C)41 (B)20.46

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- (C) 2(A)66 (D) 2(B)35
27. A group of students decided to collect as many paise from each member of group as is the number of members. If the total collection amounts to Rs. 59.29, the number of the members in the group is:
(A) 57 (B)67
(C) 77 (D) 87
28. A vessel is filled with liquid, 3 parts of which are water and 5 parts syrup. How much (in fraction of vessel size) of the mixture must be drawn off and replaced with water so that the mixture may be half water and half syrup?
(A) $1/3$ (B) $1/4$
(C) $1/5$ (D) $1/7$
29. 3 pumps, working 8 hours a day, can empty a tank in 2 days. How many hours a day must 4 pumps work to empty the tank in 1 day?
(A) 9 (B)10
(C) 11 (D) 12
30. In a camp, there is a meal for 120 men or 200 children. If 150 children have taken the meal, how many men may be catered with the remaining meal?
(A) 20 (B)30
(C) 40 (D) 50
31. A milk vendor has 2 cans of milk. The first contains 25% water and the rest milk. The second contains 50% water. How much milk should he mix from each of the containers so as to get 12 litres of milk such that the ratio of water to milk is 3: 5?
(A) 4 litres, 8 litres
(B) 6 litres, 6 litres
(C) 5 litres, 7 litres
(D) 7 litres, 5 litre
32. A train can travel 50% faster than a car. Both start from point A at the same time and reach point B 75 kms away from A at the same time. On the way, however, the train lost about 1(B)5 minutes while stopping at the stations. The speed of the car is:
(A) 100 km/hr
(B) 110 km/hr
(C) 120 km/hr
(D) 130 km/hr
33. In a flight of 600 km, an aircraft was slowed down, due to bad weather. Its average speed for the trip was reduced by 200 km/hr and the time of flight increased by 30 minutes. The duration of the flight is:
(A) 1 hour (B)2 hours
(C) 3 hours (D) 4 hours
34. It takes eight hours for a 600 km journey, if 120 km is done by, train and the rest by car. It takes 20 minutes more, if 200 km is done by train and the rest by car. The ratio of the speed of the train to that of the cars is:
(A) 2:3 (B)3:2
(C) 3:4 (D) 4:3
35. A, B and C jointly thought of engaging themselves in a business venture. It was agreed that A would invest Rs. 6500 for 6 months, B, Rs. 8400 for 9 months and C, Rs. 10,000 for 3 months. A wants to be the working member for which, he was to receive 5% of the profits. The profit earned was Rs. 7400. Calculate the share of B in the profit.
(A) Rs. 1900 (B)Rs. 2660
(C) Rs. 2800 (D) Rs. 2840
36. A and B started a business in partnership investing Rs. 20,000 and Rs. 15,000 respectively. After six months, C joined them with Rs. 20,000. What will be B's share in total profit of Rs. 25,000 earned at the end of 2 years from the starting of the business?
(A) Rs. 7500 (B)Rs. 9000
(C) Rs. 9500 (D) Rs. 10,000
37. In a triangle PQR, the length of the side QR is less than twice the length of the side PQ by 2 cm. The length of the side PR exceeds the length of the side PQ by 10 cm. The perimeter is 40 cm. The length of the smallest side of the triangle PQR is :
(A) 6 cm (B)8 cm
(C) 7 cm (D) 10 cm
38. A rectangular park 60 m long and 40 m wide has two concrete crossroads running in the middle of the park and rest of the park has been used as a lawn. If the area of the lawn is 2109 sq. m, then what is the width of the road?
(A) 91m (B)3 m
(C) 5.82 m (D) None of these
39. A towel, when bleached, was found to have lost 20% of its length and 10% of its breadth. The percentage of decrease in area is:
(A) 10% (B)10.08%
(C) 20% (D) 28%
40. What is the unit digit in $\{(6374)^{1793} \times (625)^{317} \times (341)^{491}\}$?
(A) 0 (B)2

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- (C) 3 (D) 5
41. A watch which gains 5 seconds in 3 minutes was set right at 7 a.m. In the afternoon of the same day, when the watch indicated quarter past 4 o'clock, the true time is:
- (A) $59\frac{7}{12}$ min. past 3
(B) 4 pm
(C) $58\frac{7}{11}$ min. past 3
(D) $2\frac{3}{11}$ min. past 4
42. A man has Rs. 480 in the denominations of one-rupee notes, five-rupee notes and ten-rupee notes. The number of notes of each denomination is equal. What is the total number of notes that he has ?
- (A) 45 (B)60
(C) 75 (D) 90
43. Find out the wrong number in the given sequence of number
582,605 588,611,634,617,600
- (A) 634 (B)611
(C) 605 (D) 600
44. In a class, there are 15 boys and 10 girls. Three students are selected at random. The probability that 1 girl and 2 boys are selected is:
- (A) $21/46$ (B) $25/117$
(C) $1/50$ (D) $3/25$
45. A boat running upstream takes 8 hours 48 minutes to cover a certain distance, while it takes 4 hours to cover the same distance running downstream. What is the ratio between the speed of the boat and speed of the water current respectively?
- (A) 2:1
(B) 3:2
(C) 8:3
(D) Cannot be determined
46. Two ships are sailing in the sea on the two sides of a lighthouse. The angle of elevation of the top of the lighthouse is observed from the ships are 30° and 45° respectively. If the lighthouse is 100 m high, the distance between the two ships is:
- (A) 173 m (B)200 m
(C) 273 m (D) 300 m
47. In a 500 m race, the ratio of the speeds of two contestants A and B is 3 : (D) A has a start of 140 m. Then, A wins by:
- (A) 60 m (B)40 m

- (C) 20 m (D) 10 m
48. Insert the missing number in the following series: 7, 26,63, 124, 215. 342, (...)
- (A) 481 (B)511
(C) 391 (D) 421
49. Three pipes A, B and C can fill a tank from empty full in 30 minutes, 20 minutes, and 10 minutes respectively. When the tank is empty, all the three pipes are opened. A, B and C discharge chemical solutions P,Q and R respectively. What is the proportion of the solution R in the liquid in the tank after 3 minutes?
- (A) $5/11$ (B) $6/11$
(C) $7/11$ (D) $8/11$
50. Study the table carefully to answer the question that follows:

SCH- OOL	CLASSES									
	VI		VII		VIII		IX		X	
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail
A	64	12	56	12	62	9	60	14	68	10
B	55	18	64	16	88	7	64	11	73	12
C	53	18	80	10	56	12	83	9	63	16
O	62	11	62	14	64	13	61	7	53	17
E	70	15	76	17	78	18	52	13	79	9
F	58	8	72	13	72	14	45	12.	75	11

- What is the average number of fail students from class IX from all the schools together?
- (A) 19 (B)17
3 13 (D) 11
51. In ASA system, if the tool nomenclature 8-6-5-5-10-15-2, then the side rake angle will be:
- (A) 5° (B) 6°
(C) 8° (D) 10°
52. Cutting tool material 18-4-1 HSS has which one of the following compositions:
- (A) 18% W, 4% Cr, 1% V
(B) 18% Cr, 4% W, 1%V
(C) 18% W, 4% Ni, 1%V
(D) 18% Cr, 4% Ni, 1% V
53. Directional solidification in casting can be improved by using :
- (A) Chills and chaplets
(B) Chills and padding
(C) Chaplets and padding
(D) Chilis, chaplets and padding
54. In a CNC machine tool, encoder is used to sense and control:
- (A) Table position
(B) Table velocity
(C) Spindle speed
(D) Coolant flow

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55. During machining on a Lathe, excess metal is removed in the form of chips as in the case of turning. Which of the following conditions are required for continuous ribbon like chip to be formed in turning?
- At a higher cutting speed
 - At a lower cutting speed
 - A brittle material
 - A ductile material
- Select the correct answer amongst the following
- (A) A and C (B) A and D
(C) B and C (D) B and D
56. Match list-I (Process) with list-II (Products or raw material) and select the correct answer using the codes given below the list:
- List-I**
- Die casting
 - Shell molding
 - CO₂ molding
 - Centrifugal casting
- List -II**
- Phenol formaldehyde
 - C.I. pipes
 - Non-ferrous alloys
 - Sodium silicate
- Codes:**
- | | A | B | C | D |
|-----|----------|----------|----------|----------|
| (A) | 3 | 1 | 4 | 2 |
| (B) | 1 | 3 | 4 | 2 |
| (C) | 1 | 3 | 2 | 4 |
| (D) | 3 | 1 | 2 | 4 |
57. In the 3-2-1 principle of fixture 3 refers to number of:
- Setups possible
 - Clamps required
 - Locating position
 - Positions on primary face
58. A given steel test specimen is studied under metallurgical microscope (magnification used is 100X). In that different phases are observed one of them is Fe₃C. The observed phase Fe₃C is also known as:
- Ferrite
 - Austenite
 - Cementite.
 - Martensite
59. For a general two dimensional stress system, what are the co-ordinates of the centre of Mohr's circle?
- (A) $\frac{\sigma_x - \sigma_y}{z}, 0$ (B) $0, \frac{\sigma_x + \sigma_y}{z}$
- (C) $\frac{\sigma_x + \sigma_y}{z}, 0$ (D) $0, \frac{\sigma_x - \sigma_y}{z}$
60. Which of the following is true (μ = Poisson's ratio)
- $0 < \mu < \frac{1}{2}$
 - $1 < \mu < -1$
 - $1 < \mu < 0$
 - $\infty < \mu < -\infty$
61. A steel rod of 100 cm long and 1 sq cm cross sectional area has a young's modulus of elasticity 2×10^6 kgf/cm². It is subjected to an axial pull of 2000 kgf. The elongation of the rod will be:
- 0.05 cm
 - 0.1 cm
 - 0.15 cm
 - 0.20 cm
62. When a body is immersed in a fluid, the buoyant force experienced by it is proportional to
- Volume of the body
 - Volume of the fluid displaced
 - Weight of the body
 - Velocity of immersion
63. Which one of the following forecasting techniques is most suitable for making long range forecast?
- Time series analysis
 - Regression analysis
 - Exponential smoothing
 - Market surveys
64. A hollow shaft of the same cross-section area and material as that of a solid shaft, transmits:
- Same torque
 - Lesser torque
 - More torque
 - None
65. Which key is preferred for the condition where a large amount of impact torque is to be transmitted in both direction of rotation?
- Woodruff key
 - Feather key
 - Gib head key
 - Tangent key
66. The maximum distortion energy theory of failure is suitable to predict the failure of which one of the following types of materials?
- Brittle materials
 - Ductile materials
 - Plastics
 - Composite materials
67. In the assembly design of shaft, pulley and gear, the weakest member is

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- (A) Pulley (B) Key
(C) Shaft (D) None
68. A gas turbine works on which one of the following cycles?
(A) Brayton (B) Rankine
(C) Stirling (D) Otto

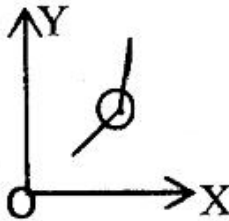
69. Sensitiveness of a governor is defined as :

- (A) $\frac{\text{Range of speed}}{2 \times \text{mean speed}}$
(B) $\frac{\text{Mean speed}}{\text{Range of speed}}$
(C) Mean speed \times Range of speed
(D) $\frac{\text{Range of speed}}{\text{Mean speed}}$

70. What is the relationship between elastic constants E, G and K?

- (A) $E = \frac{KG}{9K+G}$ (B) $E = \frac{9KG}{K+G}$
(C) $E = \frac{9KG}{K+3G}$ (D) $E = \frac{9KG}{3K+G}$

71. The two-link system, shown in the given figure, is constrained to move with planar motion. It possesses :



- (A) 2- degrees of freedom
(B) 3- degrees of freedom
(C) 4- degrees of freedom
(D) 6- degrees of freedom

72. If, m = mass of the ball of the governor, w = angular velocity of the governor, g = acceleration due to gravity, then the height of Watt's governor is given by :

- (A) $\frac{g}{2\omega^2}$ (B) $\frac{g}{\omega^2}$
(C) $\frac{\sqrt{2g}}{\omega^2}$ (D) $\frac{2g}{\omega^2}$

73. Material handling is considered as

- (A) Economically waste it should be eliminated
(B) Economically waste but cannot be eliminated

(C) Economically profitable so should be increased
(D) It does not cost in any way

74. In reaction turbines, the draft tube is used.

- (A) For the safety of the turbine
(B) To convert the kinetic energy of flow by a gradual expansion of the flow cross-section
(C) To destroy the undesirable eddies
(D) For none of the above purpose

75. Newton's law of viscosity depends upon the.

- (A) Stress and strain in a fluid
(B) Shear stress, pressure and velocity
(C) Shear stress and rate of strain
(D) Viscosity and shear stress

76. At the point of boundary layer separation :

- (A) Shear stress is maximum
(B) Shear stress is zero
(C) Velocity is negative
(D) Density variation is maximum

77. Which of the following is used as GO & NO GO gauge in measurement?

- (A) Slipgauge
(B) Snap gauge
(C) Angle gauge
(D) Spirit level

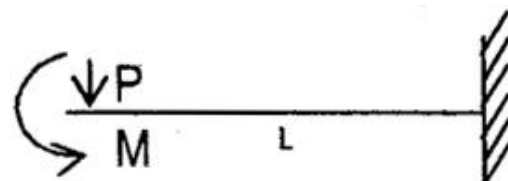
78. Which one of the following moulding processes does not require use of core ?

- (A) Sand moulding
(B) Shell moulding
(C) Centrifugal casting
(D) Plaster moulding

79. If H is the total head at inlet and h is the head lost due to friction, the efficiency of power transmission through a straight pipe is given by :

- (A) $\frac{H-h}{H}$ (B) $\frac{H}{H+h}$
(C) $\frac{H-h}{H+h}$ (D) $\frac{H}{H-h}$

80. The given figure shows a cantilever of span 'l' subjected to a concentrated load 'P' and a moment 'M' at the free end. Deflection at the free end is given by:



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- (A) $\frac{PL^2}{3EI} + \frac{ML^2}{3EI}$ (B) $\frac{ML^2}{2EI} + \frac{PL^3}{3EI}$
- (C) $\frac{ML^2}{3EI} + \frac{PL^3}{2EI}$ (C) $\frac{ML^2}{2EI} + \frac{PL^3}{48EI}$
81. A centrifugal pump is started with its delivery valve kept:
 (A) fully open (B) Fully closed
 (C) Partially open (C) 50% open
82. The frictional head loss in a turbulent flow through a pipe varies:
 (A) Directly as the average velocity
 (B) Directly as the square of the average velocity
 (C) Inversely as the square of the average velocity
 (D) Inversely as the square of the internal diameter of the pipe
83. A Pelton wheel is ideally suited for:
 (A) High head and low discharge
 (B) High head and high discharge
 (C) Low head and low discharge
 (D) Medium head and medium discharge
84. If the stream function is given by- $\psi = 3xy$, then the velocity at a point (2, 3) will be :
 (A) 7.21 unit (B) 10.82 unit
 (C) 18 unit (D) 54 unit
85. The work done in compressing a gas isothermally is given by
 (A) $\frac{r}{r-1} P_1 V \left[\left(\frac{P_2}{P_1} \right)^{\frac{r-1}{r}} - L \right]$
 (B) $mRT_1 \ln \frac{P_2}{P_1}$
 (C) $m C_p (T_2 - T_1)$
 (D) $mRT_1 \left(1 - \frac{T_2}{T_1} \right)$
86. Which one of the following statements applicable to a perfect gas will also be true for an irreversible process?
 (A) $dQ = du + pdv$
 (B) $dQ = Tds$
 (C) $Tds = du + pdv$
 (D) None of these
87. A composite wall consists of two layers of different material having conductivities k_1 and k_2 . For equal thickness of the two layers, the equivalent thermal conductivity of the slab will be:
 (A) $k_1 + k_2$ (B) $k_1 k_2$
 (C) $\frac{2k_1 + k_2}{k_1 + k_2}$ (D) $\frac{k_1 + k_2}{k_1 + k_2}$
88. If the temperature of a solid surface changes from 27°C to 627°C, then how many times its emissive power will increase?
 (A) 3 (B) 9
 (C) 27 (D) 81
89. Waste heat can be effectively used in which one of the following refrigeration system ?
 (A) Vapour compression cycle .
 (B) Vapour absorption cycle
 (C) Air refrigeration cycle
 (D) Vortex refrigeration system
90. Heat is mainly transferred by conduction, convection and radiation in:
 (A) Insulated pipes carrying hot water
 (B) Refrigerator freezer coil
 (C) Boiler furnaces
 (D) Condensation of steam in a condenser
91. The refrigerant used for absorption refrigerators, is a mixture of water and :
 (A) Carbon dioxide
 (B) Sulphur dioxide
 (C) Lithium bromide
 (D) Freon 12
92. The most commonly used method for the design of duct size is the:
 (A) Velocity reduction method
 (B) Equal fraction method
 (C) Static region method
 (D) Dual or double duct method
93. A mass of 1 kg is attached to the end of a spring with a stiffness 0.7N/mm. The critical damping coefficient of this system is :
 (A) 40 Ns/m (B) 18.52 Ns/m
 (C) 5 Ns/m (D) 529.2 Ns/m
94. In order to draw the acceleration diagram, it is necessary to determine the Coriolis component of acceleration in the case of:
 (A) Crank and slotted lever quick return mechanism
 (B) Slider-crank mechanism
 (C) Four bar mechanism
 (D) Pantograph
95. The piston rod and the cross head in a steam engine are usually connected by means of:
 (A) Cotter joint
 (B) Knuckle joint
 (C) Ball joint

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- (D) Universal joint
96. In case of "VED" analysis of inventory control "E" stands for
- (A) Easily available items
 - (B) Essential items
 - (C) Extra-ordinary items
 - (D) Extra items
97. In a single speed reduction, a large velocity ratio is required. The best transmission is through:
- (A) Spur gear drive
 - (B) Helical gear drive
 - (C) Bevel gear drive
 - (D) Worm gear drive
98. When a nut is tightened by placing a washer below it, the bolt will be subjected to:
- (A) Compression only
 - (B) Tension only
 - (C) Shear only
 - (D) Compression and shear both
99. In CPM, the crash cost slope is determined by:
- (A) $\frac{\text{Crash cost}}{\text{Normal cost}}$
 - (B) $\frac{\text{Crash cost} - \text{Normal cost}}{\text{Normal time} - \text{Crash time}}$
 - (C) $\frac{\text{Normal cost}}{\text{Crash time}}$
 - (D) $\frac{\text{Normal cost} - \text{Crash cost}}{\text{Normal time} - \text{Crash time}}$
100. Eutectic reaction for Iron-carbon system occurs at:
- (A) 600 °C
 - (B) 723°C
 - (C) 1130 °C
 - (D) 1493 °C