BYJU'S EXAM PREP

DRDO CEPTAM 10

Mechanical Engineering

Sample Question Paper with Answer Key

1. While solving a linear programming problem by simplex method, if all ratios of the right-hand side (b_i) to the coefficient, in the key row (a_{ij}) become negative, then the problem has which of the following types of solution _____?

A. An unbound solution
B. Multiple solutions
C. A unique solution
D. No solution

Ans. A

2. Spinning operation is carried out on

A. Hydraulic press
B. Mechanical press
C. Lathe
D. Milling machine

Ans. C

3. 300 kJ/sec of heat is applied at a constant fixed temperature of 290 °C to a heat engine. The heat rejection takes place at 8.5 °C. then match the following:

Results obtained	Cycle
a) 215kJ/sec are rejected.	1) reversible
b) 150kJ/sec are rejected	2) irreversible
c) 75kJ/sec are rejected	3) impossible

A. a-1, b-2, c-3
B. a-2, b-1, c-3
C. a-3, b-1, c-2
D. a-1, b-3, c-2

Ans. B

4. Diamond cutting tools are not recommended for machining of ferrous metals due to _____.

A. High tool hardness
B. Chemical affinity of tool material with iron
C. Poor tool toughness
D. High Thermal conductivity of work material

Ans. B

5. A positive value of Joule-Thomson coefficient of a fluid means

A. Temperature drops during throttling
B. Temperature remains constant during throttling
C. Temperature rises during throttling
D. None of these

Ans. A

6. A straight tree breaks due to storm and the broken part bends so that the top of the tree touches the ground making an angle of 30° with the ground. The distance from the foot of the tree to the point, where the top touches the ground is 10 m. Find the total height of the tree?

A. $10\sqrt{3m}$
B. $\frac{10\sqrt{3}}{3}m$
C. $10\left(\sqrt{3+1}\right)m$
D. $10\left(\sqrt{3-1}\right)m$

Ans. A

7. In CAM, "Part programming" refers to

A. Generation of cutter location data
B. On-line Inspection
C. Machine selection
D. Tool selection

Ans. A

8. Which of the following thermocouple is capable of measuring highest temperature?

A. Chromel - alumel
B. Platinum - rhodium
C. Iridium - rhodium
D. Iron – constantan

Ans. C

9. The main alloying elements in high speed steel in order of increasing proportion are

A. Vanadium, chromium, tungsten
B. tungsten, titanium, vanadium
C. Chromium, titanium, vanadium
D. tungsten, Chromium, titanium

Ans. A

10. Two cutters are mounted on the arbor so that two faces are machined simultaneously in

A. Gang milling
B. Straddle milling
C. Pendulum milling
D. Profile milling

Ans. B

11. A person can cover 5 km in 20 min in downstream and 6 km in 36 min in upstream. What is respective ratio of speed of boat (in still water) and current?

A. 1 : 5.
B. 2 : 3
C. 5 : 1
D. 4 : 3

Ans. C

12. Four consecutive prime numbers are taken in ascending order. Product of first three numbers is 1001 and product of last three numbers are 2431 then what is first number?

A. 11
B. 13
C. 7
D. 17

Ans. C

13. In a pulverized fuel fired large power boiler, the heat transfer from the burning fuel to the walls of the furnace is

A. by conduction only
B. by convection only
C. by conduction and convection
D. predominantly by radiation

Ans. D

14. Tolerances generally followed for tooling design are

A. 5 - 10% of work piece tolerance
B. 11 - 30% of work piece tolerance
C. 31 - 50% of work piece tolerance
D. none of these

Ans. A

15. Which one of the following is FALSE?

A. Number of Taps generally used for hand tapping is 3

B. Piispanen's model in machining is used to estimate shear strain

C. Chip hammering during machining is due to improper chip control

D. Cemented carbide tools are generally poor in compression

Ans. D

16. The source of energy in ultrasonic machining process is

A. Mechanical B. Electrical

C. Electric spark D. None of these

Ans. A

17. Who discovered benzene?

A. Hal Anger B. Michael Faraday

C. Bruce Ames D. Nicolas Appert

Ans. B

18. The main objective of 'shot peening' is to improve which property of metal parts

A. Fatigue strength B. Ductility

C. Surface Finish D. None of these

Ans. A

19. Bowman's Capsule is part of which of following human body system?

A. Respiratory System B. Muscular System

C. Excretory System D. Circulatory System

Ans. C

20. Who was The Chief of General Staff of the Indian Army during Indo- China war?

A. Brij Mohan Kaul B. K. S. Thimayya

C. K. M. Cariappa D. Sam Manekshaw

Ans. A

21. TRAI was established in which year?

A. 1994 B. 1995

C. 1996 D. 1997

Ans. D

22. The study of antigens and antibodies found in the blood is called_____.

A. Serology B. Entomology

C. Epidemiology D. Gynecology

Ans. A

23. Chauri Chaura incident happened in which year?

A. 1921 B. 1922

C. 1923 D. 1924

Ans. B

24. Identify the number that does NOT belong in the given series.

5, 8, 22, 75, 335, 1575, 9468, 66297

A. 1575 B. 335

C. 75 D. 22

Ans. B

25. Master schedule is prepared for

A. Single product continuous production B. Multi product batch production

C. Assembly product continuous production D. Single product batch production

Ans. C

26. The correct sequence of operations in production planning and control is

A. Routing-Scheduling-Dispatching-Follow up B. Scheduling-Routing- Dispatching-Follow up

C. Dispatching-Routing-Scheduling- Follow up D. Routing-Scheduling-Follow up-Dispatching

Ans. A

27. The basic difference between MRP and MRP-II is _____.

A. Inventory B. BOM

C. Finance D. Capacity planning

Ans. C

28. Among the following gear manufacturing process, which is based on generation principle _____?

A. Gear hobbing B. gear milling

C. gear shaving D. gear rolling

Ans. A

29. In forced convection ''h'' is not a function of

A. ρ B. v

C. ΔT D. C_P

Ans. C

30. Match List I (Casting processes) with List II (Features) and select the correct answer using the codes given below the list

	List-I		List-II
P.	Continuous casting	1.	A variation of sand mould casting.
Q.	Die casting	2.	Used for making ornamental and decorative objects.
R.	Shell-mould casting	3.	Useful for producing tubes, slabs and gears and also known as strand casting.
S.	Slush casting	4.	Uses very high pressure.
T.	Squeeze casting	5.	Is also known as lost-pattern casting.
		6.	Uses pressure during solidification.

A. P-3,Q-4,R-1,S-2,T-6
B. P-4,Q-3,R-5,S-6,T-1
C. P-4,Q-3,R-2,S-1,T-6
D. P-3,Q-4,R-5,S-2,T-1

Ans. A

31. In a pipe flow heat exchanger, hot fluid flows at a rate of 5 kg/s, specific heat $4.2\frac{kJ}{Kg-K}$. And cold fluid enters at a rate of 3kg/s and specific heat $2.1\frac{kJ}{kg-k}$. Heat transfer coefficient for hot fluid side is $20\frac{W}{m^2k}$ and for cold fluid side is $30\frac{W}{m^2k}$. Area of heat transfer is 0.7 m^2 then what will be the NTU?

A. 1.33
B. 0.4
C. 1.66
D. 1.2

Ans. A

32. Which one of the following sand moulds uses sodium silicate as a binder?

A. Loam sand mould
B. CO_2 mould
C. Dry sand mould
D. Composite mould

Ans. B

33. In an air standard cycle, indicated power is 80 KW and mechanical efficiency is 85%. Then the frictional power will be

A. 68 kW
B. 12 kW
C. 14 kW
D. 15 kW

Ans. B

34. Lowest possible temperature to which water can be cooled in any cooling tower is

A. Wet bulb temperature incoming air
B. Dry bulb temperature incoming air
C. Due point temperature
D. Ambient temperature

Ans. A

35. 1800 kJ of heat is transferred from condensing steam at 600 K to vaporizing water at 450K. The atmospheric temperature is 300 K. The net decrease of availability for the overall process of heat transfer in kJ is

A. 1200
B. 900
C. 600
D. 300

Ans. D

36. Match Column I with Column II for the index n in PV^n Thermodynamic processes.

Column I		Column II
A) 1	-	1) Isobaric Process
B) 0	-	2) Isochoric Process

C) ∞ - 3) Adiabatic Process

D) $\frac{C_p}{C_v}$ - 4) Isothermal Process

A. 4 - 1 - 2 - 3
B. 4 - 2 - 1 - 3
C. 4 - 3 - 2 - 1
D. 1 - 2 - 4 - 3

Ans. A

37. Select the best options from below, which correctly matches the 'Operating mode of SI engine' (List A) with the 'Desired A/F ratio' (List B):

List A	List B
A1: Idling	B1: 13.0
A2: Cold Starting	B2: 4.0
A3: Cruising	B3: 16.0
A4: Full Throttle	B4: 9.0

A. A1 - B4, A2 - B2, A3 - B3, A4 - B1
B. A1 - B4, A2 - B2, A3 - B1, A4 - B3
C. A1 - B2, A2 - B4, A3 - B3, A4 - B1
D. A1 - B2, A2 - B4, A3 - B1, A4 - B3

Ans. A

38. Centrifugal tension in the belt _____.

A. Increases the power transmitted
B. Decreases the power transmitted
C. has no effect on the power transmitted
D. is equal to maximum tension on the belt

Ans. B

39. A refrigerator with COP of 5 is used in a room at 300 K. What will be the heat intake through a section of refrigerator wall of area 100 cm × 100 cm with a thickness of 10 cm, assuming only conduction ? Value of thermal conductivity of the wall can be taken as 1 W/cm.K.

A. 5000 W
B. 1000 W
C. 7500 W
D. 3000 W

Ans. A

40. A gas is contained in a cylinder with a moveable piston of 100 kg mass. When 2500 J of heat flows into the gas, the internal energy of the gas increases by 1500 J. What is the distance through which the piston rises ?

A. 2 m
B. 1 m
C. 2.5 m
D. 0.5 m

Ans. B

41. Ratio of convective mass transfer to the mass diffusion rate is called?

A. Sherwood number
B. Schmidt number
C. Rayleigh number
D. Strouhal number

Ans. A

42. Analogy between momentum and heat transfer is known as

A. Stanton-Prandtl analogy
B. Grassoff-Meyer analogy
C. Chilton-Colburn analogy
D. None of the above

Ans. C

43. A mass of 1 kg of air at 27°C and 0.98 atm is taken through a diesel cycle. If the compression ratio of the engine is 16, calculate the temperature of the air after compression ? (for calculation, take the ratio of specific heats of air as 1.5)

A. 1200 deg C
B. 1473 deg C
C. 927 deg C
D. 768 deg C

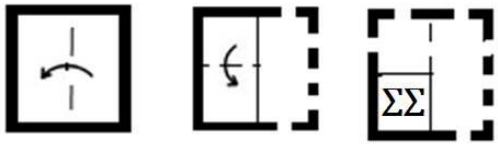
Ans. C

44. In Gas tungsten arc welding (GTAW) which of the following polarity is generally used for getting higher penetration

A. Direct current straight polarity (DCSP)
B. Direct current reverse polarity (DCRP)
C. Alternating Current high frequency (ACHF)
D. All of the above

Ans. A

45. The sequence of folding a piece of square paper and the manner in which the folded paper has been cut is shown in the figures. How would this paper look when unfolded?



A. 

B. 

C. 

D. 

Ans. D

46. Tarun goes 12m east and then took a right turn and goes 14m, he then took a left turn and goes 18m. He again took a left turn and goes 26m. He finally took a left turn and goes 35m. Now in which direction and how far is he from his starting point?

A. North-East, 17m
B. North-West, 12m
C. South-West, 21m
D. North-West, 13m

Ans. D

47. Two statements are given, followed by four conclusions numbered I, II, III and IV. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements.

Statement:

Some google are jio.

Some jio are facebook.

Conclusions:

I. Some google are facebook.

II. No google are facebook.

III. All google are jio.

IV. All facebook are jio.

A. Either conclusion (I) or (II) follows

B. Only Conclusion (IV) follows

C. Conclusion (I) and (II) follow

D. Only conclusion (I) follows

Ans. A

48. In the following letter set, the second letter set is related to the first letter set in a certain way, find the letter set from the options which is related to the third letter set in the same way.

MASK : QFYR :: POST : ?

A. TTYA

B. GGBF

C. LREW

D. SAQW

Ans. A

49. If in a certain code, CHINAINDIA is written as CPKJECKFPK, How will CEASEFIRES be written in that language?

A. GUCGEULNPH

B. GUCGEUGFDW

C. KREGEUGTKH

D. GUCGEUGTKH

Ans. D

50. The diameter of rivet hole in a riveted joint is 30 mm. If the tearing efficiency = 80%, then the pitch is.

A. 180 mm

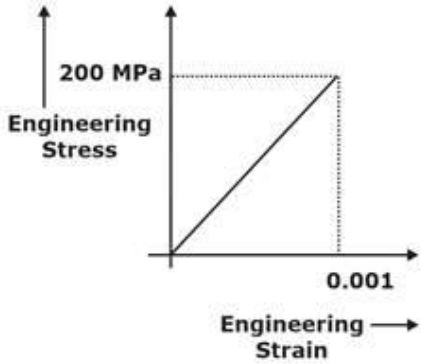
B. 240 mm

C. 140 mm

D. 150 mm

Ans. D

51. Consider the following diagram:



The Young's modules (E) is?

A. 200 GPa
B. 250 GPa
C. 100 MPa
D. 200 kPa

Ans. A

52. A solid round bar of 2m length is used as strut. Both end of the strut is fixed. find the safe compression load for this strut using Euler formula. Assume.

E = 100 GPa, I = 10 x 10^{-7} m^4, factor of safety = 2

A. 986.96 kN
B. 328.98 kN
C. 246.74 kN
D. 493.48 kN

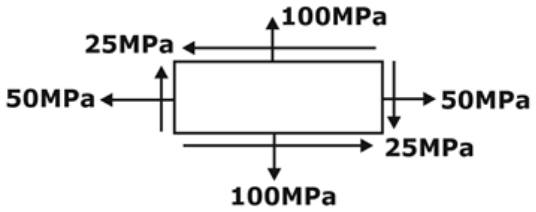
Ans. D

53. A solid circular shaft subjected to pure torsional stress. If diameter of the shaft is increased by 3 times, ratio of the torque obtained after making the diameter three times to the initial torque is_____?

A. 1/27
B. 1/9
C. 27
D. 9

Ans. C

54. A point in a material is subjected to a stress as shown in the figure. Find the sum of major and minor principal stresses.



A. 50 MPa
B. 75 MPa
C. 150 MPa
D. 100 MPa

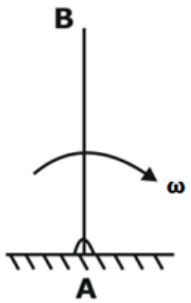
Ans. C

55. In cam and follower mechanism curve drawn by the trace point assuming that the cam is fixed is _____.

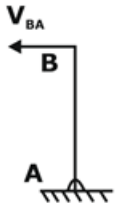
A. Base circle
B. Pitch curve
C. Prime curve
D. Pitch circle

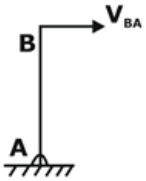
Ans. B

56. A rigid link AB is hinged at point A and rotating with angular velocity ω in clockwise direction as shown in figure.

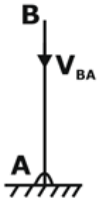


Which of the following represents correct direction of velocity B with respect to point A.

A. 

B. 

C. 

D. 

Ans. B

57. Tension in tight side and slack side in a belt pulley arrangement are 2000 N and 1000 N respectively. If velocity of belt is 5 m/s. Find power transmitted in kW.

A. 7
B. 5
C. 10
D. 15

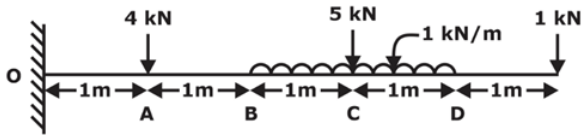
Ans. B

58. Determine maximum safe air pressure for a cylindrical drum of 2m diameter and plate thickness of 1 cm. The tensile stress in the plating is 140 MPa and the longitudinal and circumferential joint efficiencies are 75% and 40%.

A. 1.12 MPa
B. 1.05 MPa
C. 0.8 MPa
D. 1.2 MPa

Ans. B

59. The shear force at point B is _____ kN.



A. 8 kN
B. 7 kN
C. 10 kN
D. None of these

Ans. A

60. If the value of σ_1, σ_2 and σ_3 are 80 MPa, 90 MPa and 10 MPa respectively, E = 200 GPa and μ = 1/3, then the value of $\varepsilon_1 - \varepsilon_2$ is _____. (where the symbols hold their usual meanings)

A. -0.667×10^{-6}
B. 66.67×10^{-5}
C. 0.667×10^{4}
D. -6.67×10^{-5}

Ans. D

61. Which of the following is a four bar linkage used to produce paths exactly similar to the ones traced out by a point on the linkage-

A. Pantograph
B. Paucellier mechanism
C. Watt mechanism
D. None of these

Ans. A

62. In a gear arrangement, the speed of pinion is 20 rad/s and the speed of the gear is 10 rad/s. If the pitch circle radius of pinion is 35 mm, the sliding velocity at the pitch point is _____.

A. 0.350 m/s
B. 0
C. 0.700 m/s
D. 1.05

Ans. B

63. A mass of 4 kg is placed on top of three springs of spring constant is 1000 N/m, 2000 N/m and 4000 N/m. the natural frequency of vibration of the system.

A. 58 rad/s
B. 48 rad/s
C. 100 rad/s
D. 42 rad/s

Ans. D

64. For a single cylinder reciprocating engine, mass of the reciprocating and revolving parts are 30 kg and 25 kg respectively. The stroke length is 360 mm. If 70% of the reciprocating parts and all of the revolving parts are to be balanced, then the balance mass required at 300 mm is _____.

A. 23 kg
B. 25 kg
C. 46 kg
D. 27.6 kg

Ans. D

65. The circumferential stress induced in the rim of a flywheel is 12 MPa and the density of the material of the rim is 7500 kg/m^3. Determine the limiting tangential velocity at the mean radius of the rim of flywheel.

A. 30 m/s
B. 40 m/s
C. 50 m/s
D. 60 m/s

Ans. B

66. If the pressure angle is 30º and the path of contact between the meshing gears is $30\sqrt{3}$ mm, the circular pitch is equal to _____ (given that two teeth are in contact)

A. 40 mm
B. 50 mm
C. 30 mm
D. 20 mm

Ans. C

67. A one-fourth model of a pump was tested at 800 rpm in a testing facility. The head developed was 10 m. If the prototype has to work against a head of 40 m, then its working speed would be _____.

A. 200 rpm
B. 800 rpm
C. 100 rpm
D. 400 rpm

Ans. D

68. Find the tangential velocity at wheel outlet of an inward radial flow turbine where it is rotating at a speed of 240 rpm. Inner diameter is 0.5 times the external diameter and external diameter is 2m.

A. 2π m/s
B. 4π m/s
C. π m/s
D. 8π m/s

Ans. B

69. A boat is moving in sea water with a speed of 36 km/hr. Water is discharged from the back of the ship with an absolute velocity of 18 m/s. If the area of jet is 0.05 m^2. Find the propelling force.

A. 7200 N
B. 9000 N
C. 25200 N
D. 16200 N

Ans. C

70. $\left(\frac{\sigma_m}{S_{ut}}.N\right)^2 + \left(\frac{\sigma_a}{\sigma_e}.N\right) \le 1$. This equation refers to _____.

A. Langer line equation
B. ASME ellipse equation
C. Goodman's equation
D. Gerber's parabola equation

Ans. D

71. For a particular time interval load on a shaft are noted as +10kN, +8kN, +7kN and +22kN. These types of loads are _____.

A. Fluctuating loads
B. Alternating loads
C. Repeated loads
D. Completely reversed loads.

Ans. A

72. Consider the following statements and select incorrect statements:

1) In reaction turbine, blade cross section passage is made converging type both for fixed and moving blades.

2) In impulse turbine, all round admission of steam through the ring of fixed blade.

3) Pressure drop takes place only in nozzle and there is no drop of pressure across moving blades in impulse turbine.

4) The combined plant efficiency for a coupled in series power plants with efficiencies 25% and 35% is 38.75%

A. 1 and 3 only
B. 2 and 4 only
C. 1 and 4 only
D. 3 and 4 only

Ans. B

73. In a centrifugal compressor, increase in kinetic energy in Impeller which is to be transformed into pressure in diffuser is denoted by _____.

A. Centrifugal effect
B. Diffusion effect
C. Impulse effect
D. Reaction effect

Ans. C

74. Which of the following statements are correct _____?

1) Fluidized bed combustion in boiler leads to low NO_x emissions.

2) In locomotive boiler draught is produced by steam jet.

3) High quality of coal as fuel is required for fluidized bed combustion.

4) Greater portion of heat transfer in waste-heat boilers is due to convection.

A. 1, 2 & 4 only
B. 3 & 4 only
C. 2 & 3 only
D. 1, 2 & 3 only

Ans. A

75. In axial flow reaction gas turbine across the rotor _____.

A. Relative velocity decreases.
B. Absolute velocity increases.
C. Absolute velocity decreases.
D. Absolute velocity remains constant.

Ans. C

76. Which of following statement is INCORRECT about reaction turbine _____?

A. Airfoil blades are used in reaction turbine.

B. Pressure drop occurs both in moving and fixed blades.

C. overall admission of steam doesn't take place.

D. blades are of converging cross-section type.

Ans. C

77. If $\frac{x}{3-x}+\frac{y}{3-y}-\frac{z}{3-z}=11$, then the value of $\frac{1}{3-x}+\frac{1}{3-y}-\frac{1}{3-z}$ is:

A. 6
B. 4
C. 8
D. 3

Ans. B

78. When a valve is suddenly closed on a liquid flowing through a long pipe, the pressure wave of high intensity thus generated, is known as:

A. flow hammer
B. pressure wave
C. water hammer
D. jet hammer

Ans. C

79. A _____ is a device used for measuring the rate of flow of a fluid flowing through a pipe.

A. hygrometer
B. venturi meter
C. manometer
D. barometer

Ans. B

80. Vorticity is _____ times the value of angular velocity.

A. five
B. three
C. two
D. four

Ans. C

81. Coefficient of discharge is equal to:

A. Coefficient of contraction × Coefficient of velocity
B. Coefficient of Contraction / Coefficient of Velocity
C. Coefficient of Contraction / Coefficient of Acceleration
D. Coefficient of contraction × Coefficient of acceleration

Ans. A

82. What data is required to determine the stability of a floating body?

A. Angle of tilt of the floating body
B. Mass of the floating body
C. Displaced volume of the floating body
D. Position of the metacentre

Ans. D

83. In a two-dimensional flow, a streamline shall be interpreted as:

A. a curve such that velocity vector is always tangential and there is no flow in the direction normal to it
B. they are not contours of an impervious two-dimensional body
C. at the edge, velocity vector is normal to the flow
D. flow is constant in the direction normal to the flow

Ans. A

84. The mechanical efficiency of a Pelton wheel is given by:

A. water power/shaft power
B. shaft power/runner power
C. runner power/shaft power
D. shaft power/water power

Ans. B

85. A centrifugal pump acts as a reverse of:

A. reciprocating pump
B. outward radial flow reaction turbine
C. Pelton turbine
D. inward radial flow reaction turbine

Ans. D

86. The property of a fluid which offers resistance to the movement of one layer of fluid over another layer of fluid, is called:

A. turbidity
B. fluidity
C. specific weight
D. viscosity

Ans. D

87. If the motion of any of the movable links result in the definite motion of the others, the linkage is known as:

A. locked system
B. superstructure
C. mechanism
D. structure

Ans. C

88. Which of the following theories is best applied to brittle materials?

A. Minimum principal strain theory
B. Maximum shear stress theory
C. Maximum strain energy theory
D. Maximum principal stress theory

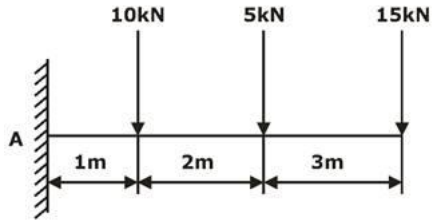
Ans. D

89. _____ is a type of anti-frictional bearing.

A. Collar bearing
B. Pedestal bearing
C. Hydrostatic bearing
D. Needle bearing

Ans. D

90. The reaction and bending moments at point A of the cantilever beam are:



A. R_A = 30 kN and M_A = −115 kNm
B. R_A = 30 kN and M_A = 0 kNm
C. R_A = 30 kN and M_A = −125 kNm
D. R_A = 0 kN and M_A = −115 kNm

Ans. A

91. A cylindrical metal bar of 12 mm diameter is loaded by an axial force of 20 kN results in change in diameter by 0.003 mm, Poisson's ratio is given by: (Assume modulus of rigidity = 80 GPa)

A. 0.56
B. 0.2923
C. 0.056
D. 0.025

Ans. B

92. If Poisson's ratio of an elastic material is 0.4, then what will be the ratio of modulus of rigidity to young's modulus _____?

A. 0.06
B. 0.16
C. 0.36
D. 0.86

Ans. C

93. Rohan and Piyush started a business with investments of Rs.60,000 and Rs.40,000 respectively. Rohan invested for an year and piyush invested for 8 months. If after an year the profit was Rs.52,000 then calculate the profit of rohan?

A. Rs.16,000
B. Rs.36,000
C. Rs.52,000
D. Rs.20,000

Ans. B

94. Calculate the value of equation given below

30 × 15 – 10 ÷ 4 + 5 ÷ 6

If ÷ represents ×, × represents ÷ , – represents + , + represents –

A. 20
B. 12
C. 16
D. 18

Ans. B

95. In compound interest an amount becomes 16 times of itself in 4 years. Calculate the interest rate?

A. 20%
B. 30%
C. 75%
D. 100%

Ans. D

96. If the two polynomials $x^3 - Ax^2 + 20x + 50$ and $2x^3 + 6x^2 - 10x - B$ are divisible by $x - 5$ and $x - 2$ respectively then find the value of A + B ?

A. 20
B. 25
C. 30
D. 31

Ans. D

97. Which of the following is/are correct in sequencing?

1). Job Flow time is the time from when processing begins on the first job in set until the last job is completed.

2). Make span time (MST) is the time from some starting time until that particular job is completed.

A. Only 1
B. 1 and 2
C. Only 2
D. Neither 1 nor 2

Ans. D

98. Risk priority number depends on

1. Occurrence of failure
2. severity of failure
3. Detection

Which of the following above statements are correct?

A. 1 and 3 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3 only

Ans. D

99. In which one of the following, the criticality of the time is most important than the cost factor of the item?

A. ABC analysis
B. VED analysis
C. p system
D. q system

Ans. B

100. Addition of fins increases heat transfer if $\sqrt{\frac{hA}{kP}}$ is

A. Equal to 1
B. Greater than 1
C. Less than 1
D. Greater than 1 but less than 2

Ans. C

****