UNIVERSITY OF ENGNEERING AND TECHNOLOGY, LAHORE

ENTRANCE TEST – 2016
For F.Sc and Non-F.Sc. Students
Time Allowed: 100 Minutes
Total MCQs: 100

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Instructions:

(i) Read the instruction on the MCQ Response From carefully.
(ii) Choose the single best answer for each question.
(iii) Candidates are strictly prohibited from giving any identification mark except Roll No. & Signature in the specific columns only.

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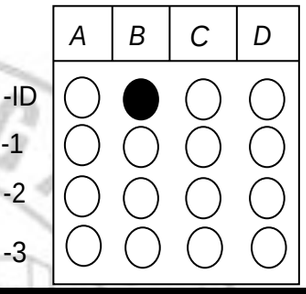
COMPULSARY QUESTION FOR IDENTIFICATION

Q-ID What is the color of your question Paper?

A) BLUE C) RED
B) GREEN D) YELLOW

Ans: Color of your question Paper is green. Fill the corresponding to letter 'B' Against 'ID' in your MCQ (Exactly as shown in the Diagram).



circle response form

PHYSICS

1. An astronaut in space comes to know of an explosion on a nearby planet. The astronaut came to know about the explosion because:
A) The astronaut saw, heard and felt the explosion
B) The astronaut only saw the explosion
C) The astronaut only heard the explosion
D) The astronaut both saw and heard the explosion

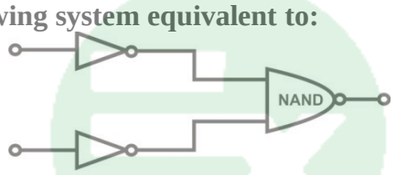
2. A gate is connected in a configuration shown in the figure. The relationship between *Y* and *X* is given by:

A) $Y = X$ B) $\bar{Y} = X$
C) $\bar{Y} = X$ D) Both B and C

3. You have 20 capacitors available with you, each of 15 F. you need a capacitor of around 1 F in a circuit. You can achieve this value by connecting:
A) 15 capacitors in parallel B) 20 capacitors in series
C) 15 capacitors in series D) 20 capacitors in parallel

4. A thermistor with positive temperature coefficient is used to measure temperature in a furnace:
A) Decreases B)Increases
C) Remains unchanged D) None of these

5. Which single gate in the following system equivalent to:



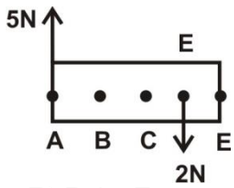
A) NOR gate B)NAND gate
C) OR gate D) XOR gate

6. When you drop a ball it accelerates downward at 9.8 m/s^2. If you instead throw it downwards then its acceleration immediately after leaving your hand, assuming no air resistance, is:
A) 9.8 m/s^2 B)More than 9.8 m/s^2
C) Less than 9.8 m/s^2 D) Depends on throwing speed

7. Which one of the following is not a vector quantity?
A) Kinetic energy B) Momentum
C) Acceleration D) Force

8. A tight wire is clamped at two points 2.0 m apart. It is plucked near one end. Which are three longest wavelengths present on the vibrating wire?
A) 2.0 m, 1 m, 0.67 m B) 4.0 m, 2.0 m, 1.33 m
C) 4.0 m, 2.0 m, 1 m D) 1 m, 0.5 m, 0.33 m

9. **A uniform bar AE of wavelengths 9 N is held horizontal by vertical forces two additional forces act at A and D as shown in figure . the point must a vertical force of 6 N act to keep bar in equilibrium:**

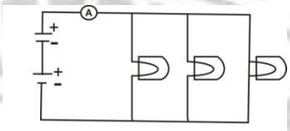


A) Point D
B) Point E
C) Point C
D) Point B

10. **In a competition, fielders are required to throw the cricket hard ball as far as possible. Under ideal conditions, optimum throwing angle is 40° . What should this angle, with to ground, be in (i) strong winds against the direction of throw; and (ii) Strong winds in the direction of throw?**

A) (i) more than 45° , (ii) less than 45°
B)(i) less than 45° , (ii) more than 45°
C) 45° in both cases
D) Depends on throwing speed

11. **Three similar light bulbs are connected to a constant voltage DC supply as shown in the diagram. Each bulb operates at normal brightness and an ammeter of negligible registers a steady current:**



The filament of one of the bulbs breaks. What happens to the ammeter reading and the brightness of the remaining bulbs?

A) Ammeter reading increases, bulb brightness increases
B) Ammeter reading increases, bulb brightness remains unchanged
C) Ammeter reading remains unchanged, bulb brightness remains unchanged
D) Ammeter reading decreases, bulb brightness remains unchanged

12. **Two sphere, each of mass m and velocity v are involved in a perfectly inelastic head-on collision as shown in figure below:**

The percentage loss in kinetic energy due to the collision is:

A)25%
B) 50%
C) 66%
D) 100%

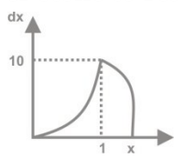
13. **An ambulance moves around a large round-about, with its sirens on. For a person standing at the center of the round-about, the frequency of ambulance siren heard will be:**

A) Equal to the actual siren frequency
B) Less than actual siren frequency
C) Greater than the actual siren frequency
D) Changing as the ambulance moves frequency

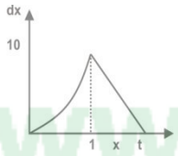
14. **Two satellites are to be launched into space from the surface of earth. Satellite 1 has mass 10 kg and volume 1500 cm^3 while satellite 2 has mass 5 kg and volume 1000 cm^3. Assume the required escape velocities of satellite 1 and satellite 2 are v_1 and v_2, respectively. The relation between v_1 and v_2 is:**

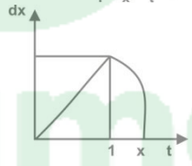
A) Relation depends on the launch
B) $v_1 = v_2$
C) $v_1 > v_2$
D) $v_1 < v$

15. **Two stones are thrown down simultaneously from a cliff of height 25 m. the initial speeds of the two stones are 10 m/s and 20 m/s, respectively. Which if the following graphs correctly shows the variations of relative distance, d1, between the two stones? Assume that the time taken by the slower stone to reach ground is x, g = 10 m/s^2 and that the stones do not rebound on impact:**

A)


B)


B)


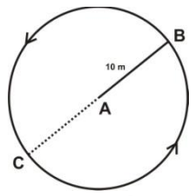
D)


16. **A mass of a liquid of density is mixed with an equal mass of another liquid of density 3. The density f the liquid mixture is:**

A) 1
B) 2
C) $\frac{3}{2}\rho$
D)4

17. **The period of oscillation of a pendulum $T = 2\pi\sqrt{L/g}$. Measured value of L is 10cm known to 1 mm accuracy and time for 100 oscillations is observed to be 100 sec correct to the nearest second. The accuracy in determination of g is :**

A) Approximately 3%
B) Approximately 5%
C) Approximately 15%
D) Approximately 10%



18. **In an experiment, the uncertainty in the value of a resistor is 2%. Furthermore, the uncertainty in the potential difference across the same resistors is 1%. The uncertainty in the power loss in the resistor is:**

A) Approximately 3%
B) Approximately 5%
C) Approximately 4%
D) Approximately 6%

19. **With reference to figure P-1, the toy car takes a total time of t_o, with a total displacement of d_o while travelling on the path $A \to B \to C \to B$. The total time and total displacement are given by:**

A) $t_o = (2\pi + 1)\sec, d_o = 10m$
B) $t_o = (\pi + 2)\sec, d_o = 10m$
C) $t_o = (2\pi + 1)\sec, d_o = (20\pi + 10)m$
D) None of these

20. **With reference to Figure P-1, which of the following statements relating the average velocity for the complete path and the instantaneous velocity at point C is true:**

A) The average velocity and the instantaneous velocity at C are equal
B) The relation depends upon the mass of the toys car
C) The average velocity is greater than the instantaneous velocity at C
D) The instantaneous velocity at C is greater than the average velocity

21. **A sphere of mass m and velocity 2v moving in the x direction collides with a sphere of mass 2m and velocity v moving in the y direction. If the collision is perfectly elastic. Which of the following statements is corrects:**

A) The two sphere sticks together after impact
B) The total kinetic energy before the impact is 3 mv^2
C) The total momentum before impact is 4 mv
D) Both B and C

22. **Two progressive waves of frequency 250 Hz are superimposed to produce a stationary wave in which adjacent nodes are 2 m apart. The speed of the progressive waves is:**

A) 125 m/sec
B) 250 m/sec
C) 500 m/sec
D)1000 m/sec

23. **The lines of a diffraction grating have a spacing of 1.2 m. when a beam of monochromatic light is incident normally on the grating, the first order maximum makes an angle of 30º with the normal to diffraction grating. The wavelength of the monochromatic light is:**

A) 1200 nano meters
B) 450 nano meters
C) 600 nano meters
D) 700 nano meters

24. **Water flows through a horizontal pipe with two different cross-sectional area 2A and the pressure of the water is P_1. Similarly, the cross-sectional area and pressure of the water in the second section is A and P_1, respectively.**

Assuming v1 denotes the speed of water flow in the first section and denotes the density of water, which of the following equations correctly represents the difference in the pressure of the water in the two sections:

A) $P_1 - P_2 = 0.5\rho v_1^2$
B) $P_1 - P_2 = \rho v_1^2$
C) $P_1 - P_2 = 1.5\rho v_1^2$
D) $P_1 - P_2 = 2\rho v_1^2$

25. **White light is directed at a diffraction grating at an angle normal to the grating starting at the normal to the grating (0º), the order of red, green and blue light in the diffracted spectrum is:**

A) Red, green, blue
B) Green, blue, red
C) Red, blue, green
D) Blue, green, red

26. **Monochromatic light of wavelength 1 in vacuum is incident on the surface of glass at an angle 1. Assuming the refractive index of glass is 1.5, the wavelength of the refracted ray in glass is:**

A) $_1/1.5$ B) 1
C) 1.5_1 D) There is no refracted ray

27. On a hot summer day, temperature is measured in a big hall a few minutes after turning on the air conditioners. Assuming the temperature close to the floor is T_1 and temperature close to the ceiling in T_2, which of the following statement is true:

A) $T_1 < T_2$ because of Boyle's Law B) $T_1 < T_2$ because of Charle's Law
C) $T_1 > T_2$ because of Boyle's Law D) $T_1 > T_2$ because of Charle's Law

28. A constant current of 1 ampere flows in an electrical component over a period of 5 seconds. The total charge flowing through the component over this duration is:

A) 5 Coulombs B) 10 Coulombs
C) 15 Coulombs D) 20 Coulombs

29. The current flowing in an electrical component increases linearly from 0 to 5 A over 5 seconds. The total charge flowing through the component over this duration is:

A) 5 Coulombs B) 10 Coulombs
C) 12.5 Coulombs D) 25 Coulombs

30. A current carrying wire loop is placed in between the poles of a magnet as shown in the figure below. The direction if current flow is also shown in the figure. With respect to the axis, the wire loop will tend to:

A) Rotate clockwise B) Rotate anticlockwise
C) Not move at all D) Move magnetic north

31. **Solving the equation $x^2+(a+b)x+ab=0$ for gives:**

A) $x=-a\ ,\ x=b$ B) $x=a\ ,\ x=-b$

C) $x=-a\ ,\ x=-b$ D) $x=a\ ,\ x=b$

32. **If the roots of a quadratic equation in x are $2\pm\sqrt{3}$ then the equation is:**

A) $x^2-4x+1=0$ B) $x^2-4x-1=0$

C) $x^2+4x+1=0$ D) $x^2+4x-1=0$

33. **The eighth terms of the expansion $\left(2x^2-\frac{1}{2x^2}\right)^{12}$ is:**

A) $\frac{198}{x^4}$ B) $\frac{-198}{x^4}$

C) $\frac{-188}{x^8}$ D) $\frac{-188}{x^4}$

34. **Which of the following statement is true?**

A) $16^{\frac{1}{3}}\times16^{\frac{1}{6}}=4$ B) $9^{\frac{1}{3}}\times9^{\frac{1}{6}}=81^{\frac{1}{8}}$

C) $9^{\frac{1}{3}}\times9^{\frac{1}{6}}=9^{\frac{1}{18}}$ D) All of these

35. **If $3^{x^2-6}-9^{x+1}=0$ then the valid values of are:**

A) $(4,2)$ B) $(2,1)$

C) $(0,1)$ D) $(3,-3)$

36. **What is the value of x if $\log_9\sqrt{729}=x$?**

A) $x=\frac{1}{4}$ B) $x=\frac{3}{4}$

C) $x=\frac{1}{2}$ D) $x=\frac{3}{2}$

37. **On simplifying the expression $\left(\frac{3\log_y+1}{4-2\log_x 1}\right)^2$ the result is:**

A) 3 B) 1

C) $(\log_y y^3+\log_x x)^2$ D) Cannot be simplified

38. **The coordinates given in the table represent a line $y=mx+c$. The values of and**

x	**0**	**1**	**2**	**3**
y	**6**	$\frac{14}{3}$	$\frac{10}{3}$	**2**

A) $m=2,\ c=4$ B) $m=2,\ c=\frac{4}{3}$

C) $m=\frac{-4}{3},\ c=6$ D) $m=\frac{4}{3},\ c=4$

39. **The expression $\frac{2}{x(x+1)}$ equals:**

A) $\frac{2}{x}-\frac{2}{x+1}$ B) $\frac{2}{x}+\frac{2}{x+1}$

C) $-\frac{1}{x}+\frac{1}{x+1}$ D) $\frac{1}{x}-\frac{1}{x+1}$

40. **Find the angle between -360º and 180º when $\sin x=\frac{1}{2}$?**

A) - 30 º, -150 º B) 30 º, 150 º

C) 30 º, -150 º D) -30 º, 150 º

41. $A=\begin{bmatrix}3&-4\\2&-2\end{bmatrix}$ **and** $B=\begin{bmatrix}27\\16\end{bmatrix}$ **given that** $Ax=B$, **if the matrix** X **=?**

A) $X=\begin{bmatrix}-3\\5\end{bmatrix}$ B) $X=\begin{bmatrix}-2\\5\end{bmatrix}$

C) $X=\begin{bmatrix}5\\-3\end{bmatrix}$ D) $X=\begin{bmatrix}5\\3\end{bmatrix}$

42. $A=\begin{bmatrix}1 & 3\\ 2 & -1\end{bmatrix}$ **and** $C=\begin{bmatrix}1 & 0\\ 0 & 1\end{bmatrix}$**. Given that** $AB=C$**, find the matrix** B**?**

A) $B=\frac{1}{7}\begin{bmatrix}1 & 3\\ 2 & -1\end{bmatrix}$

B) $B=\frac{1}{7}\begin{bmatrix}2 & -1\\ 2 & -1\end{bmatrix}$

C) $B=\begin{bmatrix}-3 & 4\\ -2 & 2\end{bmatrix}$

D) $B=\begin{bmatrix}1 & 2\\ -1 & \frac{3}{2}\end{bmatrix}$

43. On simplifying the expression $\frac{\sin 2\theta}{1+\cos 2\theta}$ **the result is:**

A) $\sin\theta$

B) $co\tan\theta$

C) $\tan\theta$

D) $\sec\theta$

44. Evaluate $f(x)=\lim_{x\to 1}\frac{x^2+x-2}{x^2-x}$**.**

A) $f(x)=3$

B) $f(x)=\infty$

C) $f(x)=0$

D) $f(x)=1$

45. Differentiating the expression $(x-1)(x+2)^2$ **with respect to** x **gives:**

A) $2x(x+2)$

B) $2(x-1)(x+2)$

C) $2(x-1)$

D) $3x(x+2)$

46. The gradient of a curve $y=ax+\frac{b}{x^2}$ **at** $(2,5)$ **is 2. Find** a **and** b**:**

A) $a=7,b=4$

B) $a=7,b=2$

C) $a=\frac{7}{3},b=\frac{4}{3}$

D) $a=\frac{7}{3},b=\frac{2}{3}$

47. The coordinates of the points on the curve $y=2x^3-4x^2+x+1$ **at which the slope (gradierd) the curve is -1 are:**

A) $\left(\frac{1}{3},\frac{26}{27}\right)$

B) $(1,0)$

C) Both A &B

D) None of above

48. If $\frac{dy}{dx}=x^3+3$**, then** y **is given by:**

A) $y=\frac{x^4}{4}+3x+c$

B) $y3x^2+c$

C) $y=3x^2+3+c$

D) $y=\frac{x^3}{3}+x+c$

49. Given that Evaluate $\int_0^1 f(x)dx=\int_1^3 f(x)dx=3$**. Evaluate** $\int_0^1 f(x)dx+\int_1^3 f(x)dx=K$**.**

A) $K=4$

B) $K=6$

C) $K=3$

D) $K=0$

50. Given that $\int_0^1 f(x)dx=3.$ **Evaluate** $\int_1^3[3f(x)+4]dx=K.$

A) $K=17$

B) $K=11$

C) $K=3$

D) $K=20$

51. Given that $y=x^2\sqrt{2x-1}$ **and** $\frac{x(5x-2)}{\sqrt{2x-1}}$**. Evaluate** $\int_1^3\frac{x(5x-2)}{\sqrt{2x-1}}dx.$

A) $3\sqrt{5}-1$

B) $3\sqrt{5}+1$

C) $9\sqrt{5}-1$

D) $9\sqrt{5}+1$

52. Which of the following are valid roots of $3x^3-8x^2-5x+6:$

A) -1

B) 3

C) 1

D) Both A and B

53. Two straight lines M and N are:

$M:y=3x+1:$ **and** $N:y=\frac{1}{3}x+2.$ **Which of the following statement is true?**

A) M and N are parallel

B) M and N are parallel

C) M and N do not intersect

D) M and N intersect at multiple points

54. Let the real valued functions f **and** x **be defined by** $f(x)=3x+1$**and** $g(x)=x^2-x.$ **The expression for** $fg(x)$ **is given by:**

A) $3x^2-x+1$

B) $3x^2-3x+3$

C) $3x^2-3x+1$

D) x^2-3x+1

55. The $'y'$ **intercepts and the slope of the line expressed by** $2x+3r-2=0$**:**

A) $'y'$ intercept $= -\frac{2}{3}$; Slope $= \frac{2}{3}$

B) $'y'$ intercept $= \frac{2}{3}$; Slope $= -\frac{2}{3}$

C) $'y'$ intercept $= -\frac{2}{3}$; Slope $= \frac{2}{3}$

D) $'y'$ intercept $= -3$, Slope -3

56. Solving the equation $2^{2x} - 3x2^{x+2} + 2^5 = 0$ for $2^{2x} - 3x2^{x+2} + 2^5 = 0$ yields:

A) (1, 4)

B) (8, 4)

C) (2, 3)

D) (5, 9)

57. The area enclosed by a curve $y = \cos x$ and axis from $x = 0$ to $x = \frac{\pi}{2}$ is the same as:

A) $\int_0^{\frac{\pi}{2}} \sin x dx$

B) $\int_{\frac{\pi}{2}}^{\pi} \sin x dx$

C) $-\int_{\frac{\pi}{2}}^{\pi} \sin x dx$

D) All of the above

58. Given that $(2-25)\begin{bmatrix}1\\ \times \\ 3\end{bmatrix} = 21$. The value of x is:

A) 22

B) 3

C) 2

D) -3

59. A complex number "$1+i$" can also be expressed as":

A) $2(\cos 60° + i \sin 30°)$

B) $\cos 60° + i \sin 60°$

C) $(\cos 60° + i \sin 60°)$

D) $\cos 630° + i \sin 30°$

60. If matrix $A = \begin{bmatrix} k & 0 \\ 0 & p \end{bmatrix}$. The for what values of constant p and k is $A + A^{-1} = 21$ where I stand for identity matrix?

A) +1 and +1

B) -1 and +2

C) Not valid for any values of and

D) 1 and $\frac{1}{2}$

CHEMISTRY

61. In an alkaline battery the anode, the cathode and electrolyte are, respectively
A) Manganese dioxide, zinc, sodium hydroxide
B) Zinc, manganese dioxide, sodium hydroxide
C) Zinc, manganese dioxide, potassium hydroxide
D) Manganese dioxide, zinc, potassium hydroxide

62. Lead acid batteries discharge with time because of:
A) Deposition of $PbSO_4$ at anode
B) Deposition $PbSO_4$ at cathode
C) Both A and B
D) Acid neutralizes with time

63. A crystal system in which all axes are equal, but none of the angle is 90^0 is:
A) Cubic
B) Depositio0n of $PbSO_4$ at cathode
C) Monoclinic
D) Acid neutralizes with time

64. Which of the electronic configuration of nitrogen is correct?
A) $1s^2,2s^2,2p\frac{1}{x},2p\frac{1}{y},2\frac{1}{z}$
B) $1s^2,2s^2,2p^3$
C) $1s^2,2s^2,2p\frac{2}{x},2p\frac{1}{y},2p\frac{2}{z}$
D) $1s2,2s2,2p\frac{2}{x},2p\frac{2}{x},2p\frac{1}{z}$

65. Which of the following electronic configurations represents and element that forms a simple ion with a charge of +3?
A) $1s^2,2s^2,2p^6,3s^2,3p^1$
B) $1s^2,2s^2,2p^6,3s^2,3p^3,3d^7$
C) $1s^2,2s^2,2p^6,3s^2,3p^6,3d^1,4s^2$
D) $1s^2,2s^2,2p^6,3s^2,3p^6$

66. Complete the reaction $KmnO_4$+ $FeSO_4$ + H_2SO_4
A) $K_2SO_4 + MnSO_4 + Fe_2O_3 + H_2O$
B) $K_2SO_4 + MnSO_4 + Fe_2(SO_4)_2 + H_2$
C) $K_2SO_4 + MnSO_2 + Fe_2(SO_3)_4 + H_2O$
D) $K_2SO_4 + MnSO_4 + Fe_2(SO_4)_3 + H_2O$

67. To ensure that ethanol is not used for drinking purposes, it is converted to methylated spirit by adding.
A) 10 % methanol and a little acetone
B) 10 % petrol and little diesel
C) 50 % alcohol
D) Only 10 % methanol

68. Pickle (Achaar in urdu) when placed in the path of current.
A) Will conduct current
B) Will not conduct current
C) Will become unfit to eat
D) None of the above

69. Steel is manufactured by open hearth process from
A) Wrought iron
B) Cast iron
C) Steel scrap
D) All of the above

70. Which of the following ions has more electrons than protons and more protons tan neutrons $\left[\textbf{hint:} = \frac{2}{1}\textbf{H}; \textbf{He} = \frac{4}{2}\textbf{He}; \textbf{O} = \frac{16}{8}\textbf{O}\right]$
A) D^-
B) D_3O^+
C) He^+
D) OH^-

71. Alkanes or paraffins are made up of:
A) Carbon, hydrogen and oxygen only
B) Will not conduct current
C) Carbon, hydrogen and nitrogen only
D) Carbon and hydrogen

72. The volume of a gas at 0^0C is $100cm^3$, what will be the volume of the same gas at 4560C, assuming that pressure remains constant?
A) $5460cm^3$
B) $200cm^3$
C) $300cm^3$
D) $546cm^3$

73. When water freezes, is occupies:
A) 9 % more space
B) 9% less space
C) Same amount of space
D) none of the above

74. At muree hills water will boil at about:
A) 102ºC
B) 69ºC
C) 98ºC
D) 100ºC

75. The noble gas have:
A) Very low ionization energies
B) High boiling points
C) No electron pair interaction
D) Non van der waal's forces

76. The transitions elements:
A) Are all metals
B) High pressure
C) Show variable oxidation states
D) All of the above

77. Potassium permanganate is:
A) A powerful reducing agent
B) A powerful oxidizing agent
C) A redox agent
D) An alkaline compound

78. The following functional group is present in both aldehydes and ketones:

A) Carbonyl
B) Hydroxyl
C) Oxyboron
D) None of the above

79. The following is an alcohol:
A) $CH_3 – CH_2 – OH$
B) $CH_3 – O – CH_3$
C) CH_3COOH
D) $CH_3 – CH_2 – Br$

80. Alkanes are non-polar or weakly polar compounds that are insoluble in:
A) Polar solvent
B) Uni-Polar solvent
C) Non-polar solvent
D) None of the above

81. Aqua reggia is found when HCl and NHO3 mixed in following ratio:
A) 1 : 1
B) 2 : 1
C) 1 : 3
D) 3 : 1

82. Benzene has an extraordinary stable molecule because of:
A) Delocalized electron cloud
B) Localized electron cloud
C) Regular tetrahedral structure
D) Irregular hexagonal structure

83. Which of the following is NOT used as fertilizer?
A) Anhydrous amonia
B) Sodium hydroxide
C) Calcium nitrate
D) Diammonium phosphate

84. Ethanol can be prepared by fermenting the following in the presence of oxygen:
A) Protein
B) Oil
C) Glucose
D) None of the above

85. The periodic table gives basic framework to study the periodic behavior of the physical and chemical properties of:
A) Elements only
B) Compounds only
C) Elements and their compounds
D) Elements and their inorganic compounds

86. The oxidation states of Boron are:
A) +1, +2,+3
B) +1, -1
C) -1, -2, -3
D) +3, +1

87. Which amino acids can be synthesized by over body:
A) Basic amino acids
B) Acidic amino acids
C) Essential amino acids
D) Non-essential amino acids

88. Coagulant used in water treatment:
A) Formaldehyde is used in silvering of mirror
B) Propanal and propanone behave similarly in Tollen’s reagent
C) Acetone on reduction gives primary alcohols
D) Ketones gives brick red color with Fehling’s solution

89. Coagulant used in water treatment:
A) Gypsum
B) Dolonite
C) Asbestos
D) Alum

90. Which of the following is natural polymer?
A) Terylene
B) Polysaccharide
C) Nylon
D) Polyethene

ENGLISH

Science, engineering and technology disciplines are dictating the turn of events in the world today. Nations which are leading in these disciplines are also leading the world politically and militarily. The powers accompanying the progress in these disciplines is causing scientists, engineers and technologists to disbelieve Allah subtly if not openly. They have started believing that they can predict the future, make machines comparable to Allah's creations and have become oblivious of the dayofjudgment and of the life in the hereafter.

Science, engineering and technology revolve around o0bservatin of Allah's creations. Since Allah almighty has created Adam (AS) as superior of all creations and blessed him with the knowledge of natural phenomenon rightly described in the Quran as "Allah taught all names to Adam", it is obvious that Adam's of springs the human race, has been bestowed with the ability to observe nature of Allah's creations, understand and utilize the principles of natural phenomenon, termed as scientific laws, to their own benefit in a very restricted domain. Why restricted domain? Because, for example human beings can extract iron from iron ore and wood from trees using scientific laws but cannot make iron ore nor can make trees. Human being can bandage an injury or sew it or working of natural phenomenon, but cannot create sand, neither the elements used in making electronics circuits nor the electric circuit laws tat govern their working. They can make different machines, using their knowledge of scientific laws, integrated it skillfully programed computers, all made from Allah's creations and working according to Allah's laws. These machines cannot work by themselves but need electric power or fossil fuel to function. Any form of power source is again a blessing of Allah. The fact is as Allah has rightly pointed out in the Quran that nobody can make even a fly nor can anybody take back any think picked up by a fly. Human beings are in reality totally dependent on the blessing and provisions of Allah restricted within the bounds set by him.

With the wealth of knowledge gained from observance of Allah's creations and appreciating their total dependence on Allah, Scientists, engineers and technologists should have been in the forefront of believers in Allah. They know that they make a machine that runs maintenance free for a long time with minimal input nor can they make a machine which is self growing, but they observe a heart beating for a so many years with minimal input, they see Allah's creations multiplying with little input, a week child growing and attaining physical powers with so little input, they observe a single seed giving tons and tons of fruit and grain.

They extract or use energy from natural resources like petroleum, gas, water, sunlight which are available in enormous quantities of feeding whole mankind's lust for energy to run their machines but can they make these natural resources themselves? No they looking for alternate natural resource to compensate the loss.

They observe space, an untapped frontier. They observe the massive size and the mind boggling distances of space object, the fascinating and awe striking heavenly bodies all serenely population the apparently infinite space and held in place by invisible forces of Allah. Doesn't this awesome spectacle make us realize how small a non-entity we are doesn't strengthen our belief in Allah and convince us to submit to Allah.

Unfortunately, most of the scientists, engineers and technologists instead to bowing to Allah's commands have chosen to disobey them and live in a make believe worked revolving around their animal desires and lust for power. No matter how powerful they may be or be in custody of unmatched wealth and resources, they will finally return to Allah and death will overtake them at the appointed time, Don't they see death daily?

Can they negate it or avoid it using their scientific knowledge and power?

91. Death:

A) Is observed daily
B) Overtake human at the appointed time
C)Cannot be avoided using scientific knowledge and power
D) All of above

92. Why is stressed that humans can understand and utilize the principle of naturalphenomenon in a restricted domain?

A) Because of human can make iron and wood
B) Because humans cannot extract silicon from said
C) Because humans can make machines
D) Because humans cannot extract silicon from sand

93. Scientist cannot make energy themselves. This point is elaborated in the paragraph by explaining:

A) Petroleum and gas is not available
B)Sunlight is not available all day
C) They cannot male natural resources themselves
D) Water is running

94. The distances of heavenly objects in space have been termed as mind boggling:
A)Because of their sheer magnitude which baffles our imagination
B) Because we tend up to sleep when we learn about them
C) Because we cannot see then without a telescope
D) Because we do not care about them

95. A heart that beats for so many years minimum input and without maintenance is a proof that:
A) It is an example of Allah's creation
B) It is a low power machine
C) It can be replaced by a machine without an added power source
D) It is just an unimportant muscles of our body

96. If a natural energy resources becomes unavailable, scientist, engineers, and technologists:
A) Become totally helpless and cannot make it available
B) Look for alternate resource to compensate the loss
C) All the machines using this resource become useless
D) All of the above

97. Scientists, engineers and technologists cannot make a machine that:
A) Is like a fly which grows, reproduces and has features similar to it.
B) Can fly and has a size of a fly
C) Can catch a fly and a fly and extract the flood particle picked by it
D) Both A and C

98. As stated in the Quran that Adam (AS) was taught all the names which the angels were not taught:
A) Implying that animals are similar to humans
B) Implying that humans can make machines
C) Implying that humans should not toil to learn
D) Implying that humans should not toil to learn

99. The crux of the above paragraph is:
A) That human being can make machines without using Allah's creation
B) That Allah alone is the creator. Humans merely utilize these creations
C) That scientists, engineers and the technologists are superiors
D) The human beings are independent of Allah's restrictions

100. While reading the above paragraph, we learn that:
A) Iron is extracted from sand
B) Circuit laws are related to sand extraction
C) Silicon which is used to fabricate integrated circuits is extracted from sand
D) Wood is extracted from trees which grow in sand