

FACULTY OF ENGINEERING SCIENCES & TECHNOLOGY

Date:
Questions: 100
Time Allowed: 90 minutes

PARTICULARS

Admit Card Number: _____

Name of Student: _____

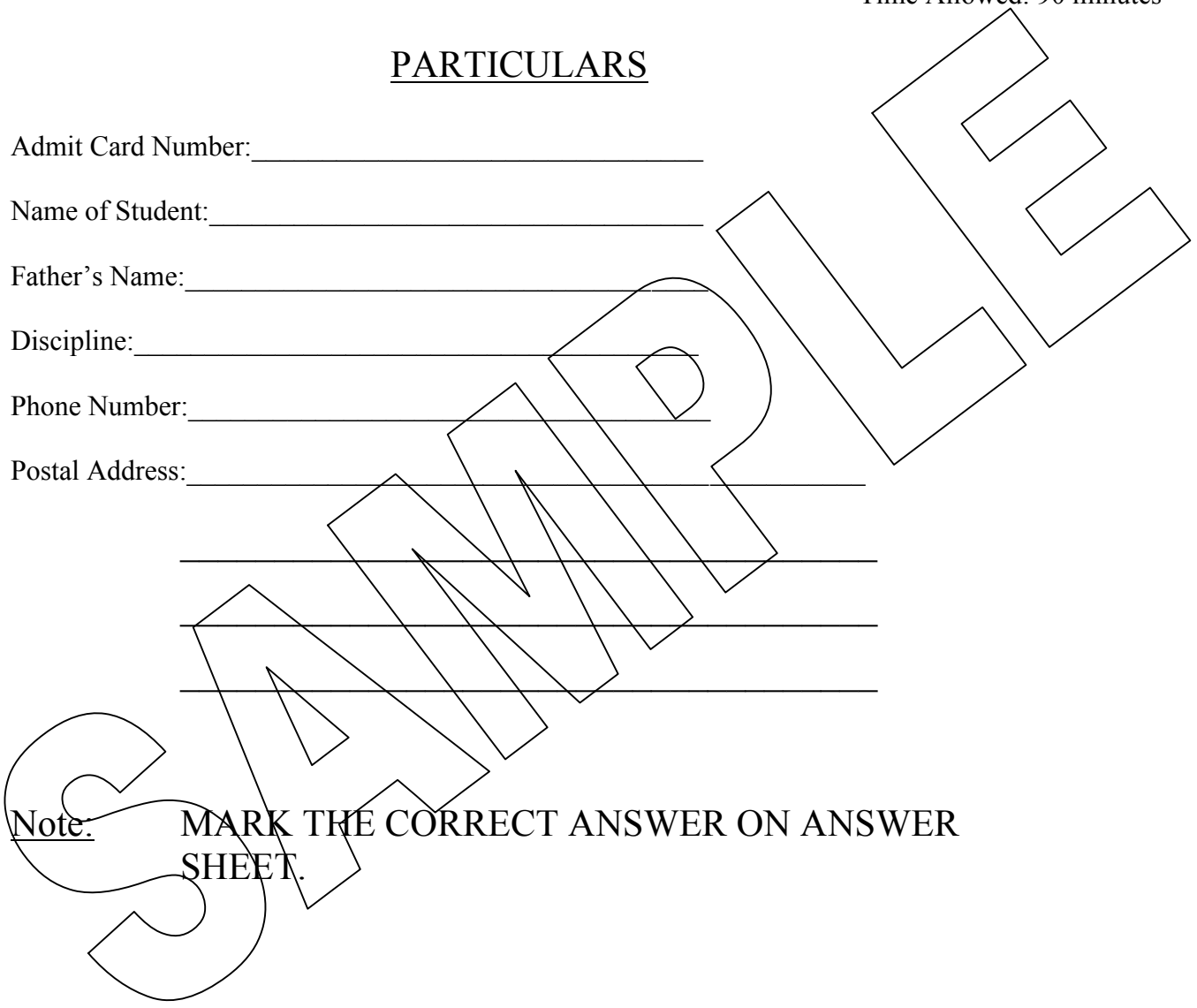
Father's Name: _____

Discipline: _____

Phone Number: _____

Postal Address: _____

Note. MARK THE CORRECT ANSWER ON ANSWER SHEET.



GENERAL KNOWLEDGE

- 1.0 Genetics is the study of _____.
- a) Biology
 - b) Anatomy
 - c) Heredity
 - d) Kinetics
- 2.0 MPEG stands for _____.
- a) Moving Prototype Enhanced Generation
 - b) Motion Pictures Expert Group
 - c) Multiple Parity Electronics Gear
 - d) Mobile Picture Enhanced Group
- 3.0 Lira is the currency of _____.
- a) Italy
 - b) Poland
 - c) Sweden
 - d) Finland
- 4.0 Which planet has the longest year?
- a) Pluto
 - b) Earth
 - c) Mercury
 - d) Jupiter
- 5.0 Which Pakistani Delegate is nominated the Representative of UN in Iraq?
- a) Riaz Khokar
 - b) Shaukat Aziz
 - c) Jehangir Qazi
 - d) Sharifuddin Peerzada
- 6.0 IMF is the abbreviation of
- a) Internet Motivation Force
 - b) Internet Monetary Fund
 - c) International Monetary Force
 - d) International Monetary Fund

7.0 The ambassador of Common wealth countries is called

- a) High Commissioner
- b) Representative
- c) Delegate
- d) Foreign Officer

8.0 Demography refers to the studies regarding

- a) Population
- b) Earthquake
- c) Flood
- d) Cancer

9.0 Budapest is the capital of

- a) Hungary
- b) Greece
- c) Turkey
- d) Italy

10.0 Light years is the unit of

- a) time
- b) distance
- c) intensity
- d) power

11.0 The second highest mountain of the world is

- a) Everest
- b) K-2
- c) Nanga Parbat
- d) Himaliya

12.0 Kalabagh Dam will be built in the province of

- a) Sindh
- b) Punjab
- c) NWFP
- d) Balochistan

13.0 Allied Forces kept their captives of Iraq and Afghanistan in the prison located in

- a) Baghdad
- b) Kabul
- c) Guantanamo Bay
- d) Camp David

14.0 The name of the sea, which has shores in Europe, Asia and Africa is :

- a) Mediterranean
- b) Red Sea
- c) Arabian Sea
- d) Dead Sea

15.0 In the year 2003 an oil tanker spilled near Karachi beach. What was the name of the oil tanker?

- a) Queen marry
- b) Tasman Spirit
- c) Titanic
- d) Ghazi

16.0 Bill Gates is the owner of

- a) Oracle Corporation
- b) SUN Microsystems
- c) Microsoft Corporation
- d) Pizza Hut

17.0 Which of the following scientist name is not a physical measurement unit.

- a) Newton
- b) Pascal
- c) Ohm
- d) Einstein

18.0 Which company develop the Pentium processor for computers?

- a) Microsoft
- b) Cisco
- c) Intel
- d) Zoltrix

19.0 The prefix gastro refers to which bodily organ?

- a) Lungs
- b) Stomach
- c) Throat
- d) Gas Problem

20.0 The year in which the 1st man landed on the moon is :

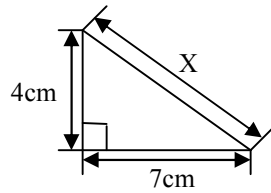
- a) 1968
- b) 1970
- c) 1972
- d) 1974

MATHEMATICS

21. The binary equivalent of number 59 is
- a) 101011
 - b) 111110
 - c) 111011
 - d) 101001
22. If matrix $A = \begin{pmatrix} 3 & 4 \\ 5 & 6 \end{pmatrix}$
The inverse of matrix A is
- a) $\begin{pmatrix} 3 & 5 \\ 6 & 4 \end{pmatrix}$
 - b) $\begin{pmatrix} 4 & 3 \\ 5 & 6 \end{pmatrix}$
 - c) $\begin{pmatrix} 6 & 5 \\ 4 & 3 \end{pmatrix}$
 - d) $\begin{pmatrix} 3 & 5 \\ 4 & 6 \end{pmatrix}$
23. The Temperature at noon on five days in June was recorded as follows
 32°C , 36°C , 39°C , 41°C , and 40°C .
What was the average noon temperature over the five days?
- a) 38°C
 - b) 37.6°C
 - c) 40.5°C
 - d) 36.2°C
24. Mr. Tayyab and Mr. Arshad form a partner ship investing Rs.1500 and Rs.5000 respectively. They agree to share the profits in the ratio of their investments. If after one year the profit amounted to Rs.1300, what is the each partner's share?
- a) Rs.300 & Rs.1000
 - b) Rs.500 & Rs.800
 - c) Rs.700 & Rs.600
 - d) Rs.1100 & Rs.200

25. Given that 1 meter = 3.28ft. The distance run in a 100-meter race approximates most closely to
- a) 100 yards
 - b) 90 yards
 - c) 105 yards
 - d) 110 yards
26. The logarithms of numbers between 0 and 1 are always
- a) 1
 - b) Positive
 - c) 0
 - d) Negative
27. An angle greater than 180° is called:
- a) Obtuse angle
 - b) Reflex angle
 - c) Right angle
 - d) Acute angle
28. Ninety nine thousand and ninety nine written in figures is one of the following.
- a) 990099
 - b) 9999
 - c) 99099
 - d) 909999
29. The value of n in the following expression is:
 $10\text{kg} = 10^n \text{ grams}$
- a) 05
 - b) 04
 - c) 06
 - d) 03

30. The value of X in the right angled triangle drawn below is:



- a) 8.062
- b) 8.015
- c) 49.9
- d) 16.49

31. The sum of interior angles of an octagon is:

- a) 1080°
- b) 360°
- c) 1440°
- d) 1260°

32. The smallest whole number which satisfies the inequality $9-2x < 5x-12$ is:

- a) 1
- b) 2
- c) 3
- d) 4

33. If $8!$ is divided by $9!$ The remainder is:

Note: The symbol (!) stands for factorial.

- a) $1/8$
- b) $1/7$
- c) $1/9$
- d) $1/6$

34. The smallest whole number which satisfies the inequality $(9-2x) < (5x-12)$ is:

- a) 1
- b) 2
- c) 3
- d) 4

35. The ratio of 24 to 64 is:

- a) 1:64
- b) 1:24
- c) 20:100
- d) 3:8

36. $(x)^6 + (2x^2)^3 + (3x^3)^2$ is equal to :

- a) $6x^{18}$
- b) $18x^6$
- c) $6x^6$
- d) $5x^5 + x^6$

37. $\int \cos(2x)\sin(2x)dx$ is equal to :

- a) $\frac{1}{8} \sin 2x + C$
- b) $\frac{1}{4} \cos 2x + C$
- c) $-\frac{1}{8} \cos 4x + C$
- d) $\frac{1}{8} \cos 4x + C$

38. If a cubic inch of a metal weighs 2 pounds, a cubic foot of the same metal weighs how many pounds.

- a) 8
- b) 96
- c) 288
- d) 3456

39. A bag contains 5 blue balls, 3 red balls and 2 black balls. A ball is drawn at random from the bag. The probability that it will be a blue ball is:

- a) 0.5
- b) 0.3
- c) 0.2
- d) 0.1

40. The next two terms of the sequence 162, 54, 18. are

- a) 48, 24
- b) 81, 41
- c) 6, 2
- d) 2, 1

ENGLISH

41. Unlike gold, paper money has no _____ value.
- a) financial
 - b) economic
 - c) inherent
 - d) fiscal
42. A _____ is a small boat that operates in water.
- a) dinghy
 - b) ship
 - c) glider
 - d) submarine
43. Metrology is the study of _____.
- a) oceans
 - b) rocks
 - c) deserts
 - d) weather
44. A galaxy is made up of many _____.
- a) stars
 - b) moons
 - c) black bodies
 - d) skies
45. An _____ is a brand new idea that lacks precedent (an earlier instance or example).
- a) invention
 - b) innovation
 - c) philosophy
 - d) belief
46. A caterpillar changes into _____.
- a) monster
 - b) butterfly
 - c) fly
 - d) lizard

47. If I _____ allowed I would have gladly joined the team

- a) were
- b) was
- c) am
- d) have

48. A traitor is a _____ person.

- a) loyal
- b) disloyal
- c) faithful
- d) stubborn

49. Urge is somewhat weaker form of _____.

- a) insist
- b) extent
- c) resist
- d) contest

50. Inaudible speaking is also called _____.

- a) scribbling
- b) messy
- c) mumbling
- d) fluent

51. _____ is actually moving through air.

- a) hovering
- b) swimming
- c) floating
- d) soaring

52. She did not _____ how to make an omelette.

- a) learnt
- b) dreamt
- c) know
- d) knew

53. Poor people live below the _____ line.

- a) poverty
- b) news
- c) happiness
- d) boundary

54. He did not _____ to lose the job.

- a) wished
- b) want
- c) imagined
- d) favoured

55. I haven't slept a _____ last night.

- a) wink
- b) wing
- c) brink
- d) way

56. The coward did have no _____ for a fight.

- a) stomach
- b) heart
- c) head
- d) blood

57. He dived _____ the river and swam in the direction of the drowning child.

- a) in
- b) into
- c) over
- d) at

58. "Love is _____", said Shakespeare

- a) blind
- b) funny
- c) life
- d) true

59. Paramount means _____.

- a) supreme
- b) valuable
- c) large
- d) urgent

60. Man proposes _____ disposes.

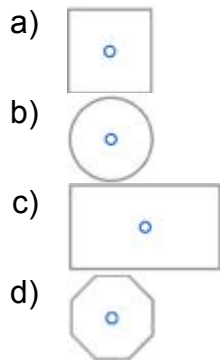
- a) prophet
- b) angel
- c) satan
- d) God

IQ

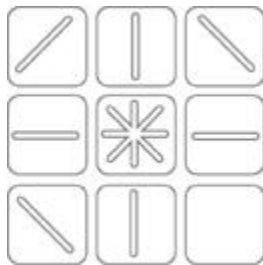
61. Which one of the four choices makes the best comparison? LIVED is to DEVIL as 6323 is to:
- a) 2336
 - b) 6232
 - c) 3236
 - d) 3326
62. Which one of these four is least like the other three? _____.
- a) Horse
 - b) Kangaroo
 - c) Cow
 - d) Donkey
63. Which number should come next? 144, 121, 100, 81, 64
- a) 17
 - b) 19
 - c) 36
 - d) 49
64. HAND is to Gloves as HEAD is to
- a) Hat
 - b) Hair
 - c) Neck
 - d) Hairpin
65. If you rearrange the letters "ANLDEGN," you would have the name of a(n):
- a) Ocean
 - b) Country
 - c) Animal
 - d) City
66. Lubna is taller than Sofia, and Jehan Ara is shorter than Lubna. Which of the following statements would be most accurate?
- a) Jehan Ara is taller than Sofia
 - b) Jehan Ara is shorter than Sofia
 - c) Jehan Ara is as tall as Sofia
 - d) It is impossible to tell

67. A boy is 4 years old and his sister is three times as old as he is. When the boy is 12 years old, how old will his sister be?
- a) 16
 - b) 20
 - c) 24
 - d) 32
68. Zia and Tayyab caught 25 fishes. Zia caught four times as many as Tayyab did. How many fishes did Tayyab catch?
- a) 4
 - b) 8
 - c) 5
 - d) 15
69. A car traveled 28 miles in 30 minutes. How many miles per hour was it traveling?
- a) 28
 - b) 55
 - c) 56
 - d) 62
70. Which number should come next? 64, 16, 4, 1, $\frac{1}{4}$,...
- a) $\frac{1}{16}$
 - b) $\frac{1}{12}$
 - c) $\frac{1}{8}$
 - d) $\frac{1}{2}$
71. What number is one half of one quarter of one tenth of 800?
- a) 2
 - b) 5
 - c) 8
 - d) 10
72. Two cars start off at the same point on a straight highway in opposite directions. Each car drives for 6 mile, takes a left turn, and drives for 8 miles. How far apart are the two cars?
- a) 2
 - b) 11
 - c) 20
 - d) 26

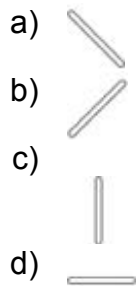
73. Which one of the figures is least like the other three?



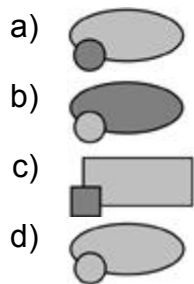
74.



Select an appropriate picture from below to fill in the empty box. above:



75.0



76. Find the missing number:

7	3	8
3	4	2
4	7	?

- a) 4
- b) 7
- c) 3
- d) 5

77. Find the missing letter:

A	C	E
D	F	H
G	I	?

- a) L
- b) G
- c) K
- d) I

78. What is the next number of the series: 5, 11, 19, 29, ____.

- a) 31
- b) 41
- c) 21
- d) 51

79. If the following names were arranged as in dictionary, which would be third?

- a) Shoukat
- b) Shahid
- c) Shabbir
- d) Shami

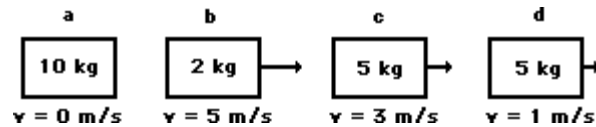
80. Find the odd one out:

- a) Honey
- b) Ghee
- c) Water
- d) Diesel

PHYSICS

81. A _____ quantity is completely described by its magnitude.
- a) tensor
 - b) scalar
 - c) vector
 - d) electrical
82. The velocity of an object at any given instant in time is known as the _____ velocity.
- a) Acceleration
 - b) deceleration
 - c) instantaneous
 - d) speed
83. Which of the following represents a speed?
- a) 6 m
 - b) 4 hr/km sec
 - c) 2 m/sec^2
 - d) 8 m/sec
84. A boy walks 150 meters due east and then turns around and walks 30 meters due west. The boy walked a distance of
- a) 30 meters
 - b) 150 meters
 - c) 120 meters
 - d) 180 meters
85. What is the mass of a 6.0 kg object on the moon if the force of gravity on the moon is one-sixth that of the Earth?
- a) 1/6 kg
 - b) 6 kg
 - c) 36 kg
 - d) 0 kg

86. The velocities and masses of four objects are shown. Which one of the following objects has the greatest momentum?



- a) a
b) b
c) c
d) d
87. If there is a net force acting upon a moving object along its direction of motion, then
- a) the object is at rest.
b) the object is moving with a constant velocity
c) the object is accelerating
d) the object is decelerating
88. A person standing on the ground sees a rocket ship move past her at 95% the speed of light, the person measures the rocket's length as
- a) longer
b) Zero
c) shorter.
d) the same length
89. A conductor differs from an insulator in that a conductor
- a) has more electrons than protons
b) has more protons than electrons
c) has more energy than an insulator
d) has faster moving molecules

90. Two charges separated by one meter exert a one N force on each other. If the charges are pulled to 3 m separation distance, the force on each charge will be _____.

- a) 0.33 N
- b) 0.11 N
- c) 3 N
- d) 9 N

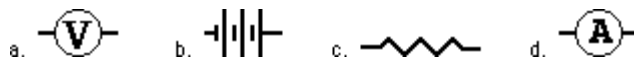
91. A positive charge and a negative charge held near each other are released. As they move, the force on each particle

- a) increases
- b) decreases
- c) remains unchanged
- d) Becomes zero

92. A 60 Watt light bulb is connected to a 120 volt plug. What is the current in the light bulb?

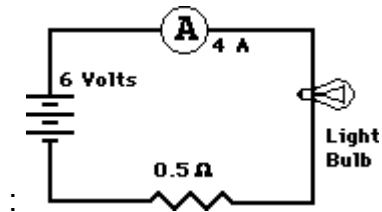
- a) 0.25 A
- b) 0.5 A
- c) 2 A
- d) 4 A

93. Which one of the following symbols represents the schematic circuit symbol of a resistor?



- a) a
- b) b
- c) c
- d) d

94. The resistance of bulb in the following circuit is



- a) 1.0 ohm
- b) 0.5 ohm
- c) 0.17 ohm
- d) 23.2 ohm

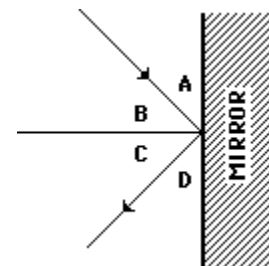
95. A tennis coach paces back and forth along the sideline 10 times in 2 minutes. The frequency of his pacing is _____ Hz.

- a) 5.0 Hz
- b) 0.2
- c) 0.12
- d) 0.0833

96. As the frequency of a wave increases, the period of the wave _____.

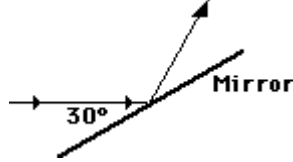
- a) decrease
- b) increases
- c) remains unchanged
- d) becomes infinity

97. Consider the diagram at the right. Which pair of the angles A, B, C, or D is the angle of incidence and the angle of reflection?

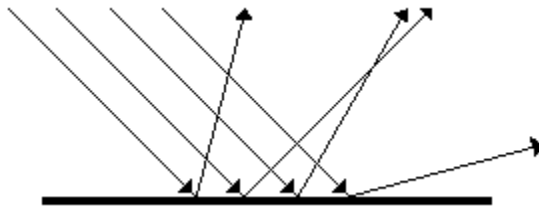


- a) A, B
- b) B, C
- c) C, D
- d) D, A

98. A ray of light is incident towards a plane mirror at an angle of 30-degrees with the mirror surface. What will be the angle of reflection?



- a) 60°
b) 75°
c) 50°
d) 90°
99. This diagram illustrated below shows a phenomenon known as:



- a) total internal reflection
b) specular reflection
c) diffuse reflection
d) interference
100. _____ is the capacity to do work.
- a) Force
b) Pressure
c) Energy
d) Momentum

END