Section A: English (Total Marks: 15)

1- They came _____ the lobby and jumped _____ the pool.

A)	out, in	B)	out, into
C)	out of, into	D)	out of, in

2- What does the idiom "once in a blue moon" mean?

A)	an event that will never happen again	B)	an event that happens every month
C)	an event that happens yearly	D)	an event that happens infrequently

3- I can't walk anymore, I'm _____ tired.

A)	so	B)	such
C)	too much	D)	too

4- James is walking _____ the school.

A)	towards	B)	off
C)	to	D)	through

5- They are not meeting us. (Change the voice)

A)	We have not being met by them.	B)	We are not being met by them.
C)	We have being not met by them.	D)	We are being not met by them.

6- They had already contacted him. (Change the voice)

A)	He has been already contacted.	B)	He have been already contacted.
C)	He had already been contacted.	D)	He had already contacted.

7- Our football team played _____ .

A)	Bad	B)	Well done
C)	Badly	D)	Good

8- She would go to the Job Centre if she ... a job.

A)	will want	B)	wanted
C)	wants	D)	had wanted

9- Nazir said, "I did my duty with full justice". (Change to Indirect speech)

A)	Nazir said that he was doing his duty with full justice.	B)	Nazir said he had done his duty with full justice.
C)	Nazir asked if he had done his duty with full justice.	D)	Nazir said that he had done his duty with full justices.

10- The judge said to the accused, "Hold your tongue". (Change to Indirect speech)

A)	The judge ordered the accused to hold his tongue.	B)	The judge told the accuse, hold your tongue.
C)	The judge told the accused, hold his tongue.	D)	The judge asked the accused to hold his tongue.

11- He said, "I was going to school every day." (Change the voice)

A)	He said that he had been going to school every day	B)	He said that he had gone to school every day
C)	He said that he has been going to school every day	D)	He said that he was going to school every day

12- Which of the following is the Antonym of the word "PREDOMINANT"?

A)	Minor	B)	Secondary
C)	Inferior	D)	Prevailing

13- The rain _____ the cloud.

A)	in	B)	from
C)	near	D)	under

14- Which of the following is the synonym of the word "NUANCE"?

A)	New word	B)	Subtle meaning
C)	Sense	D)	Interpretation

15- Which of the following is the Antonym of the word "CONFUSE"?

A)	Lucid	B)	Extraordinary
C)	Muddle	D)	Dirty

Section B: Physics (Total Marks: 20)

1-	Two vectors to be combined have magnitudes 60N and 35N. The correct answer will be:			
	A)	15N	B)	25N
	C)	70N	D)	85N
2-	The unit vector is obtained by dividing the vector with:			
	A)	Its magnitude and direction	B)	its direction
	C)	scalar quantity	D)	its magnitude but not the direction
3-	Silicon can be obtained from:			
	A)	metals	B)	sand
	C)	chemicals	D)	stones
4-	The area between the velocity time graph and the time axis is numerically equal to:			
	A)	velocity	B)	acceleration
	C)	distance	D)	time
5-	The motion of the rockets in space is according to the law of conservative of:			
	A)	linear momentum	B)	energy
	C)	Angular momentum	D)	mass
6-	The average power and instantaneous power become equal if work is done at:			
	A)	Any rate	B)	Variable rate
	C)	Uniform rate	D)	High rate
7-	If the length of the pendulum becomes four times, then its frequency will become;			
	A)	half	B)	two times
	C)	four times	D)	eight times
8-	In simple harmonic motion the acceleration of a body is directly proportional to			
	A)	applied force	B)	displacement from mean position
	C)	amplitude	D)	None of the above
9-	Set a frequency which are multiple of the fundamental frequency is called;			
	A)	Doppler's effect	B)	nodal frequency
	C)	beat frequency	D)	harmonics
10-	Absolute zero is considered as that temperature at which:			
	A)	All liquids become gases	B)	All substances remain solids
	C)	All gases become liquids	D)	Water freezes
11-	Which of the following instruments is used for detecting and measuring small electric currents?			
	A)	Ammeter	B)	Fluxmeter
	C)	Galvanometer	D)	Voltmeter
12-	The resistance of a bulb rated 60 watts/220 volts is approximately_____.			
	A)	$40 \, \Omega$	B)	$400 \, \Omega$
	C)	$80 \, \Omega$	D)	$800 \, \Omega$
13-	The force per unit charge is known as _____.			
	A)	Electric current	B)	Electric field
	C)	Electric space	D)	Electric potential
14-	The output of two input AND gate is 0 when			
	A)	Both inputs are zero	B)	Both inputs are one
	C)	One input is zero	D)	One input is one
15-	What is the dielectric constant of a metal?			
	A)	-1	B)	1
	C)	0	D)	infinite
16-	If the sizes of charged bodies are very small compared to the distances between them, we treat them as _____.			
	A)	Zero charges	B)	Single charge
	C)	No charge	D)	Point charges
17-	The work done against electrostatic force gets stored in which form of energy?			

	A)	Thermal energy	B)	Potential energy
	C)	Kinetic energy	D)	Solar energy
18-	The number of electrons in the valence shell of a semiconductor is			
	A)	1	B)	8
	C)	2	D)	4
19-	In a p-type semiconductor, the current conduction is due to			
	A)	holes	B)	protons
	C)	electrons	D)	atoms
20-	In intrinsic semiconductors at room temperature, the number of electrons and holes are:			
	A)	unequal	B)	double
	C)	equal	D)	zero

Section C: Mathematics (Total Marks: 20)

1-	Conjugate of complex number (-a, -b) is:			
	A)	(-a, b)	B)	(a, b)
	C)	(-a, -b)	D)	(a,- b)
2-	A set is defined as:			
	A)	collection of some objects	B)	well defined collection of some objects
	C)	well defined collection of distinct objects	D)	None of the above
3-	The graph of an absolute value function is			
	A)	Curve	B)	Straight Line
	C)	Parabola	D)	V-shaped
4-	A function whose domain is the set of natural numbers is called the:			
	A)	Series	B)	Convergent
	C)	Sequence	D)	Means
5-	What is called the difference between two consecutive terms of an arithmetic sequence ?			
	A)	common ratio	B)	common difference
	C)	common element	D)	none of these
6-	$f(x) = x^3 + x^2$ is			
	A)	Odd	B)	Even
	C)	Neither even nor odd	D)	Both
7-	If $A^T = -A$ then A is said to be			
	A)	Skew Symmetric	B)	Triangular
	C)	Scalar matrix	D)	Symmetric
8-	Let $A = \begin{pmatrix} 2 & 0 & 0 \\ 0 & 2 & 0 \\ 0 & 0 & 2 \end{pmatrix}$, then A is said to be			
	A)	Singular matrix	B)	Triangular
	C)	Diagonal	D)	Rectangular
9-	The probability that a number selected from the numbers 1, 2, 3, 4, 5, ..., 16 is a prime number is:			
	A)	3/16	B)	1/2
	C)	1/3	D)	3/8
10-	The lengths of the sides of a triangle are proportional to the sines of the opposite angles to the sides. This is known as:			
	A)	The law of sines	B)	The law of cosines
	C)	The law of tangents	D)	The fundamental law
11-	What is the derivative of $f(x) = 3x^2 + 6x + 6?$			
	A)	$3x^3 + 6x^2 + 6x$	B)	$3x$
	C)	$3x + 6$	D)	6

ving cards, what is the probability of drawing a spade?

			B)	1/4
			D)	1/13

	A)	1/2		
	C)	2/13		
13-	$\int (3x^2 + 2x)dx = ?$		B)	$x^3 + x^2 + 2C$
			D)	$x^3 + x$
	A)	$x^3 + x^2$		
	C)	$x^3 + x^2 + C$		
14-	If $\sin\theta = \frac{3}{5}$, then $\cos\theta = $ _____		B)	2/5
			D)	1/5
	A)	4/5		
	C)	3/5		
15-	The sum of the infinite geometric series 4+2+1+...4+2+1+... is equal to		B)	8
			D)	16
	A)	32		
	C)	4		
16-	What is the period of the function $f(x) = \cos(2x)$		B)	$\frac{3\pi}{2}$
	A)	π		
			D)	0
	C)	2π		
17-	Simplify $\log_2(8) + \log_2(2)$?		B)	6
			D)	4
	A)	10		
	C)	5		
18-	If two fair six-sided dice are rolled, what is the probability of getting a sum of 7?		B)	1/7
			D)	2/3
	A)	1/6		
	C)	1/3		
19-	Solve for x in the equation $\log_3 x = 4$		B)	64
			D)	243
	A)	12		
	C)	81		
20-	$\frac{d}{dy}(2x^4 + 3x^2 + 4x + 1)$ is		B)	$8x^3 + 6x + 4 + C$
			D)	None of the above
	A)	$8x^3 + 6x + 4$		
	C)	$8y^3 + 6y + 4$		

Section D: Computer (Total Marks: 20)

1-	The step that performs the actions given in the instructions is called _____.		B	Execute
	A	Fetch	D	Compute
	C	Decode		
2-	_____ acts as an interface between user and Hardware.		B	Language Translator
	A	MS word	D	Utility Program
	C	Operating system		
3-	$(52)_{10} = (\_\_)_2$		B	110100
	A	110011	D	100001
	C	100011		
4-	URL is an abbreviation for		B	Uniform Resource locator
	A	Universal resource Locator	D	Unique Resource Locator
	C	Unified resource Locator		
5-	Device Driver is a kind of		B	System Software
	A	Utility Program	D	Application Software
	C	Freeware		
6-	The manufacturer permanently stores system programs in a		B	Shareware
	A	Hardware	D	Freeware
	C	Firmware		
7-	Microsoft Word is an example of		B	Freeware
	A	Licenced Software	D	Shareware
	C	Open source software		
8-	The Output of a compiler is called _____		B	Source code
	A	Program	D	Object code
	C	Link code		

9-		_____ is the process of dividing the disk into tracks and sectors?		
	A	sectorization	B	Formatting
	C	Allocating	D	tracking
10-		What is BIOS?		
	A	Port	B	Interface
	C	Non-volatile ROM	D	Program in RAM
11-		It is a multi-user CLI operating system		
	A	DOS	B	Android
	C	UNIX	D	None of the above
12-		Which of the following cache memory exists inside the CPU?		
	A	L2	B	L1
	C	L3	D	L4
13-		A computer program that translates one program instruction at a time into machine language is called a/an_____?		
	A	Interpreter	B	Translator
	C	Compiler	D	Simulator
14-		1 MB = _____ bytes		
	A	2^{20}	B	2^{10}
	C	2^{30}	D	2^{30}
15-		The header file that contains input and output functions is_____		
	A	Math.h	B	Graphic.h
	C	Stdio.h	D	Conio.h
16-		Which of the following is a temporary memory?		
	A	RAM	B	ROM
	C	Flash	D	PROM
17-		Which of the following provides interface to a computer network?		
	A	Port	B	BIOS
	C	NIC	D	Modem
18-		An attribute is also known as:		
	A	Table	B	Field
	C	Row	D	Relation
19-		The Program that contains the instructions to operate a hardware device is called_____		
	A	Device operator	B	Device driver
	C	Device system	D	Device operator
20-		Scanner is a kind of _____		
	A	Input Device	B	Output Device
	C	Communication Device	D	Storage Device

Section E: Chemistry (Total Marks: 20)

1-		Which is not a molecular ion?		
	A	He+	B	CH3+
	C	NH3-	D	CO+
2-		CO+ is an example of.		
	A	Free radical	B	Cationic molecular ion
	C	Anionic molecular ion	D	Stable molecule
3-		The mass of one mole of electrons is		
	A	1.008 mg	B	0.55 mg
	C	0.184 mg	D	1.673 mg
4-		Chromatographic technique is very useful for		
	A	Isolation	B	Purification
	C	Separation	D	All of them
5-		Gases exert pressure on the walls of the container because the gas molecules.		
	A	Collide with each other	B	Collide with walls of container
	C	Have definite volume	D	None of the above

6-	Isomorphic crystals show	B	Same physical properties
	A	Same chemical properties	D	Same melting point
	C	Same crystalline form		
7-	The distillation of liquid under reduced pressure is called.	B)	Destructive distillation
	A	Vacuum distillation	D)	Simple distillation
	C	Fractional distillation		
8-	As you proceed across a period in the periodic table the first ionization energy is	B	Increase
	A	Decrease	D	First increase up the middle of period and then decreases
	C	Remains constant		
9-	In Combustion analysis, the absorption of CO_2 is	(B)	Physical change
	A)	chemical change	(D)	Maybe a or b
	C)	a and b		
10-	Which one is true relation	(B)	$d = P/RT$
	A)	$d = PM/RT$	(D)	$d = PM/T$
	C)	$d = PM/R$		
11-	When water freezes it occupies	(B)	9% more Space
	A)	9% Less Space	(D)	11% more Space
	C)	11% Less Space		
12-	The magnitude of vapour pressure (V.P) has relation with amount of liquid	(B)	inverse
	A)	direct	(D)	a and b
	C)	no-relation		
13-	Which one of the following is strong bond Comparatively?	(B)	π, Pi bond
	A)	Sigma bond	(D)	Not found
	C)	both have Same Strength		
14-	Which one of the following is ionic halide?	(B)	$AlCl_3$
	A)	NaCl	(D)	None of these
	C)	S_2Cl_2		
15-	Which of the following is non-stable function?	(B)	volume
	A)	Temperature	(D)	Work
	C)	Enthalpy		
16-	The Overall oxidation state of Carbon atoms in Glucose molecule is	(B)	1
	A)	0	(D)	3
	C)	2		
17-	Hydrolysis of tertiary butyl bromide is	(B)	2nd Order
	A)	1st Order	(D)	3rd Order
	C)	Pseudo 1st Order		
18-	Lead Chromate's Chemical formula	(B)	$PbCrO_2$
	A)	$PbCrO_4$	(D)	$PbCLO_3$
	C)	$PbCrO_3$		
19-	Which one of the following alkoxide is more stable	(B)	Pri-alkoxide
	A)	Methoxide	(D)	Ter alkoxide
	C)	Sec-alkoxide		
20-	Which one of the following is d-block element?	(B)	F
	A)	Li	(D)	Sc
	C)	Ce		

Section F: Biology   (Total Marks: 20)

1-	In different organisms water varies from	B)	65 to 89%
	A)	55 to 79%	D)	56 to 66%
	C)	40 to 80%		
2-	Acylglycerols are composed of	B)	Glycerol & amino acids
	A)	Glycerol & Fatty acids	D)	Glycerol & nucleic acid
	C)	Glycerol & butyric acid		

3-	Enzymes are most important group of proteins which are biologically		
	A) Active	B)	Inactive
	C) Dynamic	D)	Energetic
4-	In human, Relay centre is located in		
	A) forebrain	B)	midbrain
	C) hind brain	D)	spinal cord
5-	Which one is the method of sexual Reproduction?		
	A) Fission	B)	sporulation
	C) Budding	D)	conjunction
6-	The major cell infected by HIV is the helper		
	A) A-monocyte	B)	T-monocyte
	C) B-lymphocyte	D)	T-lymphocyte
7-	The volume of phage is as compared to the host is about		
	A) 1/10	B)	1/100
	C) 1/1000	D)	1/10000
8-	When the division is in three planes it will produce a		
	A) Sarcina arrangement	B)	Diplococcus arrangement
	C) Streptococcus arrangement	D)	Bacillococcus arrangement
9-	The cell wall of most bacteria have a unique macromolecule called		
	A) Teichoic acid	B)	Lipoprotein
	C) Peptidoglycan	D)	Polys accharide
10-	Source of oxygen released during photosynthesis is		
	A) Water	B)	Carbondioxide
	C) Both a and b	D)	None of them
11-	Glycolysis is the breakdown of glucose up to the formation of		
	A) Pyruvic acid	B)	Sulphuric acid
	C) ATP	D)	NAD
12-	Jejunum comprises about two fifth of the		
	A) Large intestine	B)	Small intestine
	C) Oesophagus	D)	None
13-	Each villus is richly supplied with blood capillaries and 9 vessel of lymphatic system called		
	A) Lymph vessel	B)	Arteriole
	C) Bronchiole	D)	Lacteal
14-	In human beings the respiratory pigment is		
	A) Myoglobin	B)	Actoglobin
	C) Immunoglobin	D)	Hemoglobin
15-	All of the following contain cartilage except		
	A) larynx	B)	Trachea
	C) Bronchioles	D)	Bronchi
16-	Guttation occurs in plants through		
	A) Cuticle	B)	Hydathodes
	C) Lenticels	D)	Stomata
17-	One complete heart beat consists of last for one systole which about		
	A) 0.2 seconds	B)	0.5 seconds
	C) 0.8 seconds	D)	1.5 seconds
18-	Flames cell are part of excretory system of		
	A) Cockroach	B)	Earthworm
	C) Hydra	D)	Planario
19-	Spontaneous movements due to internal cause is		
	A) Autonomic	B)	paratonic
	C) Tactic	D)	Tropic
20-	The bone dissolving cells are		
	A) osteoblast	B)	stem cells
	C) osteocyte	D)	osteoclast