UNIVERSITY OF MANAGEMENT& TECHNOLOGY, LAHORE SHS ADMISSION TEST – ANSWER SHEET Name: Reference No: Time Allowed: 9 0 Minutes Instructions: Do your own work. Keep your eyes focused to your sheets. DO NOT LOOK AROUND. Do not copy from others and do not facilitate others in copying your work. Anyone involved in copying will not be allowed to continue the exam and will be disqualified. Please darken the circle that corresponds to your answer choice. For example, if your choice is B to Question number 1, you should darken the circle below column B as follows. Question A B C D E 1 O O O O

Biology

Biology					
Question	A	В	C	D	Е
1.	0	0	0	0	0
2.	0	0	0	0	0
3.	0	0	0	0	0
4.	0	0	0	0	0
5.	0	0	0	0	0
6.	0	0	0	0	0
7.	0	0	0	0	0
8.	0	0	0	0	0
9.	0	0	0	0	0
10.	0	0	0	0	0
11.	0	0	0	0	0
12.	0	0	0	0	0
13.	0	0	0	0	0
14.	0	0	0	0	0
15.	0	0	0	0	0
16.	0	0	0	0	0
17.	0	0	0	0	0
18.	0	0	0	0	0
19.	0	0	0	0	0
20.	0	0	0	0	0
21.	0	0	0	0	0
22.	0	0	0	0	0
23.	0	0	0	0	0
24.	0	0	0	0	0
25.	0	0	0	0	0
26.	0	0	0	0	0
27.	0	0	0	0	0
28.	0	0	0	0	0
Biology Question 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30.	A O O O O O O O O O O O O O	B O O O O O O O O O O O O O O O O O O O		D O O O O O O O O O O O O O O O O O O O	E O O O O O O O O O O O O O O O O O O O
30.	0	0	0		

Q. 31 – 40 Match the Columns

31.	Syndrome	
32.	Pathogen	
33.	Etiology	
34.	Idiopathic	
35.	Iatrogenic	
36.	Nosocomial	
37.	Predisposing	
38.	Prevalent	
39.	Homeostasis	
40.	Prognosis	

Chemistry

Question	Α	В	С	D	E
1.	0	0	0	0	0
2.	0	0	0	0	0
3.	0	0	0	0	0
4.	0	0	0	0	0
5.	0	0	0	0	0
6.	0	0	0	0	0
7.	0	0	0	0	0
8.	0	0	0	0	0
9.	0	0	0	0	0
10.	0	0	0	0	0
11.	0	0	0	0	0
12.	0	0	0	0	0
13.	0	0	0	0	0
14.	0	0	0	0	0
15.	0	0	0	0	0
16.	0	0	0	0	0
17.	0	0	0	0	0
18.	0	0	0	0	0
19.	0	0	0	0	0
20.	0	0	0	0	0
21.	0	0	0	0	0
22.	0	0	0	0	0
23.	0	0	0	0	0
24.	0	0	0	0	0
25.	0	0	0	0	0
26.	0	0	0	0	0
27.	0	0	0	0	0
28.	0	0	0	0	0
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30.		B O O O O O O O O O O O O O O O O O O O	C O O O O O O O O O O O O O O O O O O O	D O O O O O O O O O O O O O O O O O O O	E O O O O O O O O O O O O O O O O O O O
30.	0	0	0	0	0

English

Question	A	В	С	D	Е
1.	0	0	0	0	0
2.	0	0	0	0	0
3.	0	0	0	0	0
4.	0	0	0	0	0
5.	0	0	0	0	0
6.	0	0	0	0	0
7.	0	0	0	0	0
8.	0	0	0	0	0
9.	0	0	0	0	0
10.	0	0	0	0	0
11.	0	0	0	0	0
12.	0	0	0	0	0
13.	0	0	0	0	0
14.	0	0	0	0	0
15.	0	0	0	0	0
16.	0	0	0	0	0
17.	0	0	0	0	0
18.	0	0	0	0	0
19.	0	0	0	0	0
20.	0	0	0	0	0
21.	0	0	0	0	0
22.	0	0	0	0	0
23.	0	0	0	0	0
24.	0	0	0	0	0
25.	0	0	0	0	0
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30.	A 0 0 0 0 0 0 0 0 0 0 0 0 0	B O O O O O O O O O O O O O O O O O O O		D O O O O O O O O O O O O O O O O O O O	E O O O O O O O O O O O O O O O O O O O
27.	0	0	0	0	0
28.	0	0	0	0	0
29.	0	0	0	0	0
30.	0	0	0	0	0

University of Management and Technology School of Health Sciences

Entry Test Fall 2015

Instructions for candidates

- 1. The entry shall comprise of 3 sections Biology, Chemistry and English
- 2. The questions can be multiple choice, true/false or matching items type.
- 3. Each section shall comprise of following test items:
 - a. Biology

40 questions

b. Chemistry

30 questions

c. English

30 questions

Total

100 questions

- 4. Each right answer gets 1 marks wrong answers do not count (there is no negative marking for guessing the correct answer)
- 5. Time allocated to complete the paper shall be <u>90</u> minutes exactly.
- 6. Please follow all the instructions of the invigilators.
- Q. 1) Mental retardation, short stature, broad face and squint eyes are the symptoms of
- A. Klinefelter's syndrome
- B. Down's syndrome
- C. Turner's syndrome
- D. XYZ syndrome
- E. None of the above
- Q. 2) Healing of a wound and repair is the phenomenon which takes place by the process of
- A. mitosis
- B. meiosis
- C. cell growth
- D. mitosis and meiosis
- E. None of the above
- Q. 3) Which one of the following is the main cause of cancer?
- A. mutation
- B. controlled cell division
- C. regulated mitosis
- D. haploid division
- E. All of the above

Q. 4) The sex of individuals of	next generation always depends on one of the parent, who is	
A. Heterogametic		
B. Homogametic		
C. Isogametic		
D. Isomorphic		
E. Ionotropic		
Q. 5) The following is not an ex	cample of a pelvic bone	
A. Ischium		
B. Ileum		
C. Public bone		
D. Sacrum		
E. Sternum		
E. Oteman		
Q. 6) The gastric juice contains bicarbonate, which is produced	high level of HCI. It is neutralized in the duodenum by the release in the	of
A. Liver		
B. Gall Bladder		
C. Spleen		
D. Pancreas		
E. Adrenal Glands		
Q. 7) Which of the following hore	mones is not released by the Thyroid gland	
A. T3		
B. T4		
C. TSH		
D. Parathyroid Hormone		
E. None of the above		
Q. 8) Which protein plays a major	or role in maintaining osmotic balance?	
A. Fibrinogen		
B. Globulin		
C. Albumin		
D. Prothrombin		
E. Erythropoietin		
4		

į

,

become macrophages is	
A. Lymphocytes	
B. Monocytes	
C. Eosinophil	
D. Basophils E. Leukocytes	
E. Leukocytes	
Q. 10) The first line of defense against infections is:	
A. Unbroken skin or mucous membrane	
B. Phagocytosis	
C. Antibody production	
D. Antigen recognition	
E. Antigen-Antibody reaction	
Q. 11) An example of an acute disease is	
d , ,	
A. Asthma	
B. Diabetes Mellitus C. Hypertension	
B. Diabetes Mellitus C. Hypertension D. Middle ear infection	
A. Asthma B. Diabetes Mellitus C. Hypertension D. Middle ear infection E. Hernia	
B. Diabetes Mellitus C. Hypertension D. Middle ear infection E. Hernia	
B. Diabetes Mellitus C. Hypertension D. Middle ear infection E. Hernia	
B. Diabetes Mellitus C. Hypertension D. Middle ear infection E. Hernia Q. 12) Erythropoietin is produced by	
B. Diabetes Mellitus C. Hypertension D. Middle ear infection E. Hernia Q. 12) Erythropoietin is produced by A. Liver	
B. Diabetes Mellitus C. Hypertension D. Middle ear infection E. Hernia	
B. Diabetes Mellitus C. Hypertension D. Middle ear infection E. Hernia Q. 12) Erythropoietin is produced by A. Liver B. Spleen	
B. Diabetes Mellitus C. Hypertension D. Middle ear infection E. Hernia Q. 12) Erythropoietin is produced by A. Liver B. Spleen D. Bone Marrow	
B. Diabetes Mellitus C. Hypertension D. Middle ear infection E. Hernia Q. 12) Erythropoietin is produced by A. Liver B. Spleen D. Bone Marrow E. Kidney	except
 B. Diabetes Mellitus C. Hypertension D. Middle ear infection E. Hernia Q. 12) Erythropoietin is produced by A. Liver B. Spleen D. Bone Marrow E. Kidney F. Carotid Body Q. 13) Example of preventive treatment includes all of the following examples of preventive treatment includes all of the following examples. 	except
B. Diabetes Mellitus C. Hypertension D. Middle ear infection E. Hernia Q. 12) Erythropoietin is produced by A. Liver B. Spleen D. Bone Marrow E. Kidney F. Carotid Body Q. 13) Example of preventive treatment includes all of the following example of pressure screening	except
B. Diabetes Mellitus C. Hypertension D. Middle ear infection E. Hernia Q. 12) Erythropoietin is produced by A. Liver B. Spleen D. Bone Marrow E. Kidney F. Carotid Body Q. 13) Example of preventive treatment includes all of the following e A. Blood pressure screening B. Physiotherapy	except
B. Diabetes Mellitus C. Hypertension D. Middle ear infection E. Hernia Q. 12) Erythropoietin is produced by A. Liver B. Spleen D. Bone Marrow E. Kidney F. Carotid Body	except

A. Medication

B. Physical Therapy
C. Nutritional modification

D. Health Education	
E. All of the above	
Q. 15) An undesirable consequence of immunity is	
A. Natural resistance	
B:-Autoimmune disorder	
C. Acquired resistance to infectious diseases	
D. Excessive regeneration	
E. Internal bleeding	
Q. 16) Hypertension may be a predisposing factor in all o	f the following conditions except
A. Immunodeficiency	
B. Renal damage	
C. Retinal damage D. Transient Ischemic Attacks	
E. Stroke	
E. Ollone	
Q. 17) If one group is given some medicine that may cure sugar pill, the group who got the medicine is the	a disease and the other group is given a
A. Hypothetical group	
B. Scientific group	
C. Control group	
D. Experimental group	
E. Placebo group	
0.400 N. 15. 1	
Q. 18) Nutrient processing is a	
A. Metabolic process	
B. Generative process	-
C. Responsive process	
D. Control process	
E. External process	
Q. 19). A person eats an apple and is sick within two hours some kind of contaminant on the skin of the apple. This pe	
come and or containment on the apple. This pe	THE WAR I SEE
A. performed an experiment	
B. made a correlation	
C. established a theory D. tested a hypothesis	
LI TRETEU A DANDULARIS	

E. None of the above

Q. 20) Tidal volume is the lung volume representing the normal volume inhalation and exhalation when extra effort is not applied. It volume is approximately	olume of air displaced between In a healthy, young adult, tidal
A 050 I	
A. 250 ml	
B. 500 ml	
C. 1000 ml	
D. 10 ml	
E. 2000 ml	
Q. 21) Which of the following diseases can be prevented through	vaccination?
A. AIDS and cancer	
B. Malaria and AIDS	
C. Typhoid and cancer	
D. Measles and mumps	
E. Diarrhea & Epilepsy	
Q. 22) A neurological condition characterized by involuntary tremo	ors, diminished motor activity and
rigidity is called	
ngially is called	
A. Failancy	
A. Epilepsy B. Parkinson's disease	
C. Alzheimer's disease	
D. Cerebellar tumours	
E. ALS	•
Q. 23) Reabsorption of water by counter current multiplier mecha	nism takes place at
A. Proximal tubule	
B. Distal tubule	
C. Collecting duct	
D. Loop of henle	
E. Efferent arterioles	
Q. 24) Antidiuretic hormone helps in reabsorption of water by cha	anging permeability of
A. Proximal tubule	
B. Distal tubule	
C. Collecting duct	
D. Loop of henle	
E. Efferent arterioles	
L. Cherent anerroles	

Q. 25) During peritoneal dialysis, the dialysis fluid is introduced into which part of human body?
A. Liver
B. Abdomen
C. Kidney
D. Pancreas
E. Thoracic cavity
Q. 26) Aldosterone helps in conservation or active absorption of
A. Sodium
B. Calcium
C. Potassium
D. Bicarbonate ions
E. Chloride ions
Q. 27) Maximum reabsorption takes place in which part of the nephron?
A. Distal tubule
B. Villi
C. Cortical tissue
D. Proximal tubule
E. Loop of henle
Q. 28) Over-activity of sympathetic nervous system causes
A. Disturbance of vision
B. Constipation
C. Decrease in blood pressure
D. Impaired vision
E. Increase in heart rate
Q. 29) Which structures respond when they are stimulated by impulse coming through motor neuron?
A Description
A. Receptors
B. Responses
C. Effectors
D. Transduction
E. All of the above

- Q. 30) Respiratory center is located in
- A. Cerebrum
- B. Cerebellum
- C. Medulla
- D. Hypothalamus
- E. Occipital lobe
- Q. 31 40) Match each item to the word or phrase listed below. (10 marks)
- a. syndrome
- b. pathogen
- c. etiology
- d. idiopathic
- e. iatrogenic
- f. nosocomial
- g. predisposing
- h. prevalent
- i. homeostasis
- j. prognosis
- 1. state of sameness that the body strives to maintain
- 2. Down
- 3. cause
- 4. unknown cause
- 5. risk factors
- 6. outcome
- 7. bacteria
- 8. disease acquired from hospital environment
- 9. problem that arose is related to the prescribed treatment
- 10. occurs more frequently

Questions 1-30: Choose the correct answer.

- 1- Which of the following compounds does not have empirical formula CH₂O
 - a) HCHO
 - b) C₆H₁₂O₆
 - c) CH₃COOH
 - d) CH₃CH₂OH
- 2- The Iodine present in water can be separated by which one of the following techniques:
 - a) Sublimation
 - b) Chromatography
 - c) Filtration
 - d) Solvent extraction
- 3- In paper chromatography mobile phase is
 - a) Gas
 - b) Liquid
 - c) Solid
 - d) None of these
- 4- An ideal gas at initial temperature of 303 K is expanded at constant pressure such that its volume is doubled. What will be its final temperature?
 - a) 303 K
 - b) 330 K
 - c) 240 K
 - d) 606 K
- 5- Hydrogen bonding is maximum in
 - a) Water
 - b) Ethanol
 - c) Benzene
 - d) Diethyl ether
- 6- Dipole-dipole interaction are present between the
 - a) Atoms of the He gas
 - b) Molecules of NH₃
 - c) Molecules of solid I2
 - d) Molecules of CH₄

8- The strongest bond is	
a) CC	
b) C = C	
c) $C \equiv C$	
d) All are equal	
9- BH ₃ , BF ₃ , AlCl ₃ all have	191din alice
a) Bent structure	
b) Trigonal planer structure	
c) Tetrahedral structure	
d) Different structures	
10-Born-Haber cycle is used to calculate the	
a) Lattice energy	
b) Enthalpy change	
c) Heat of reaction	
d) Heat of atomization	
11-The pH of HCl solution having molarity of 10 ⁻⁴ M is	
a) 2	
b) 4	
c) 3	
d) 1	
12- An acidic buffer solution can be prepared by mixing	10000 0000
a) A weak acid and weak base	
b) A strong acid and weak base	
c) A strong acid and strong base	
d) A weak base and its salt with strong acid	
13- A very dilute solution of glucose in water has	
a) Free-ions in the solution	
b) Free atoms in the solution	
c) Free molecules of solute	
d) Free atoms and molecules both	
UMT SHS ADMISSION TEST FALL 201	5

7- Which atomic orbital has lowest energy?

a) 4sb) 4pc) 5sd) 3d

2	14 014	• • • • •	1	•
		izing power of an e		ipon its
		Oxidation potent	ial	
	b)			
	c)		-1	
	d)	Electrode potenti	aı	
	15- The e	lectrolyte used in fi	iel cell is	
	a)	Aqueous NaCl		
	b)	Molten NaCl		
	c)	KOH		
	d)	NaNO ₃		
	16- Ioniza	ution energy is lowe	st for	
		Inert gases	31 101	
	-	Alkali metals		
		Halogens		
		Alkaline earth me	tals	
	α)	7 mamie carar me		
	17- The m	etals of group IA re	eact violently with	h water and make the solution
	a)	Neutral		
	b)	Amphoteric		
	c)	Acidic		
	d)	Basic		
	18- In elec	trolysis of alumina	, cryolite is added	l to
	a)	Decrease the melt	ing point of Al ₂ O	3
	b)	Increase electrical	conductivity	
	c)	Minimize the anod	lic effect	
	d)	Remove impurity		
	19- Which	of the following In	ert gases is used	in fluorescent tubes and in radio tubes
		Не		
		Ne		-
		Ar		
		Rn		
	20- Bessen	ner converter is use	d for the manufac	cture of
		Steel		
	,	Wrought iron		
	-	Cast iron		
		Pig iron		
	-7			
		UMTS	HS ADMISSION TES	5T FALL 201 5

21 - Reform	ning of petrol is a process used to produce
a)	Branched chain hydrocarbons
b)	Straight chain hydrocarbons
c)	Unsaturated hydrocarbons
d)	Aromatic hydrocarbons

- 22- A knocking sound in engine is produced when low octane fuel
 - a) Burns slowly
 - b) Burns quickly
 - c) Contain lubricating oil
 - d) Contain water
- 23- Alkenes are also called
 - a) Paraffins
 - b) Olefins
 - c) Carbenes
 - d) Aromatics
- 24- Aromaticity of benzene is due to
 - a) Presence of sigma bonds
 - b) Delocalization of double bonds
 - c) Ring structure
 - d) Three double bonds
- 25- Which of the following is more soluble in water
 - a) CH₃OH
 - b) C₂H₅OH
 - c) C₄H₉OH
 - d) C₆H₁₃OH
- 26- The order of reaction in SN₁ reaction is
 - a) Zero
 - b) First
 - c) Second
 - d) Third
- 27- The aliphatic monocarboxylic acids are commonly called
 - a) Carbohydrates
 - b) Lipids
 - c) Fatty acids
 - d) Acetates

- a) MgO
- b) Fe₂O₃
- c) CaO
- d) BaO

29- Reduction of a ketone results in

- a) Primary alcohol
- b) Secondary alcohol
- c) Tertiary alcohol
- d) Carboxylic acid

30- All of the metals are toxic pollutants of chemical industries except

- a) Cd
- b) Pb
- c) Hg
- d) Mg

Questions 1-10: Choose the best option for the underlined text. 1. Famine has been a problem since the beginning of time. (a) poverty (b) feminine (c)hunger (d)thirst 2. I made a wretched attempt to look like a man with a fearfully quick temper. (b)desperate (c)final (d) brave (a) poor 3. His voice was mournful. (d)trembling (a) thunderous b)wondrous (c)gloomy 4. The decision of the judge was impartial. (a) Objective (b)unfair (c)quick (d)mirthful 5. He wrote a <u>humorous</u> column for the daily newspaper. (a) honorable (b)sincere (c) difficult (d) comical 6. There was a cold nip in the air. (d)feeling (a) bite (b) freezing (c) chill 7. He is a diligent student and always manages to get good grades. (b)hard-working (c)sanguine (d) introvert (a) melancholy 8. They will not allow themselves to be <u>swept off</u> their feet by athletics. (c)dusted (d) washed (a) carried away (b)cleaned 9. They really have the native ability to do so. (d)physical (b)mental (c)innate (a) non local 10. Lister's aim was the prevention of disease. (b)avoidance (c)diagnosis (d)expulsion (a) expansion

Questions 11-20: Circle the correct one:

- 11. I regret at the delay.
- (a) I regret at the delay.
- (b) I regret the delay.
- (c) I regret on the delay.
- (d) I regret upon the delay.

12. Either of these two boys have broken the glass.

- (a) Either of these two boys has broken the glass.
- (b) Either of these two boy has broken the glass.
- (c) Either of these two boys have broken the glass.
- (d) Either of these two boys has broken the glass.

13. He spoke with me by Urdu.

- (a) He spoke off me in Urdu.
- (b) He spoke to me in Urdu.
- (c) He spoke with me in Urdu.
- (d) He spoke on me in Urdu.

14. I am very pleased to see you.

- (a) I am very pleased to see you.
- (b) I am most pleased to see you.
- (c) I am more pleased to see you.
- (d) I am a lot pleased to see you.

15. This is not the book which I expected.

- (a) This is not the book which I expected.
- (b) This is not the book like I expected.
- (c) This is not the book who I expected.
- (d) This is not the book as I expected.

16. All those planning to join the institution should pay your registration fee on time.

- (a) All those planning to join the institution should pay their registration fee on time.
- (b) All those planning to join the institution should pay his registration fee on time.
- (c) All those planning to join the institution should pay our registration fee on time.
- (d) All those planning to join the institution should pay theirs registration fee on time.

17. Each of the frien	ds paid	their	own	bill.
-----------------------	---------	-------	-----	-------

- (a) Each of the friends paid their own bill.
- (b) Each of the friends paid theirs own bill.
- (c) Each of the friend paid his own bill.
- (d) Each of the friends paid his own bill.

18. Neither of these two boys have won the prize.

- (a) Neither of these two boys is won the prize.
- (b) Neither of these two boys has won the prize.
- (c) Neither of these two boys have won the prize.
- (d) Neither of these two boy have won the prize.

19. He scored 97 runs in the second inning.

- (a) He scored 97 run in the second innings.
- (b) He scored 97 runs in the second inning.
- (c) He scored 97 runs in the second inning.
- (d) He scored 97 run in the second inning.

20. He bought some stationeries.

- (a) He bought some stationery.
- (b) He bought some stationeries.
- (c) He bought any stationery.
- (d) He buy some stationery.

Questions 21-25 :	Choose the right an	swer to fill the bla	nks:	
21. If you had a	any problem with y	our bike, you'd	it.	
	(b) have sold			
22. Our teacher	r is very keen	punctu	ality.	
(a) to	(b) on	(c)for	(d)about	
23. Do not give	,	your efforts.	-	
(a) away	(b)of	(c)into	(d)up	
24. I shall not a	gree his	proposal.		
(a) at			(d) of	
25. I cannot agr	ree you i	n this matter.		
(a) from		(c)with	(d) to	

Questions 26-30: Mention the part of speech of each underlined word in the following sentences:

26. He wandered about in the jungle.

(a) verb

(b)adjective

(c)adverb

(d)preposition

27. There is something strange about him.

(a) Auxiliary verb

(b)adverb

(c)conjunction

(d) preposition

28. I was just about to ask you the same thing.

(a) adjective

(b)adverb

(c)conjunction

(d)preposition

29. We were flying above the clouds.

(a) adjective

(b) adverb

(c)conjunction

(d) preposition

30. Analyze the above statement.

(a) adjective

(b)adverb

(c)conjunction

(d)preposition