



Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology Mang, Haripur, Khyber Pakhtunkhwa

Test 1	Test 2	Test 3
1. Test duration is 2 hours. 2. Test consists of 100 MCQs. 3. Test consists of 3 sections. <ul style="list-style-type: none"> • English: 20% • Biology: 40% • Chemistry: 40% 	1. Test duration is 2 hours. 2. Test consists of 100 MCQs. 3. Test consists of 3 sections. <ul style="list-style-type: none"> • English: 20% • Math: 40% • Physics: 40% 	1. Test duration is 2 hours. 2. Test consists of 100 MCQs. 3. Test consists of 3 sections. <ul style="list-style-type: none"> • English: 20% • General Math: 40% • Computer: 40%
Test 4	Test 5	Test 6
1. Test duration is 2 hours. 2. Test consists of 100 MCQs. 3. Test consists of 3 sections. <ul style="list-style-type: none"> • Drawing: 50% • Aptitudes: 50% 	1. Test duration is 2 hours. 2. Test consists of 100 MCQs. 3. Test consists of 5 sections. <ul style="list-style-type: none"> • English: 10% • General Math: 20% • Analytical: 20% • Drawing: 25% • Aptitudes: 25% 	1. Test duration is 2 hours. 2. Test consists of 100 MCQs. 3. Test consists of 3 sections. <ul style="list-style-type: none"> • English: 20% • Arithmetic: 40% • Analytical: 40%

SECTION 1

ENGLISH

Guidelines

This section has 20 questions, and each question has equal marks.

Click on Next to proceed further.

Q1. me, I would be happy to dedicate a few extra hours for the humanitarian cause.

- A) As of
- B) As for
- C) As from
- D) As to

Q2. They have a(n)..... on the top prize in the competition.

- A) advantage
- B) edge
- C) eye
- D) vision

Q3. Ahmed was true to his when he saved the child's life in the accident but asked for money as a favor from the child's parents.

- A) colors
- B) tones
- C) character
- D) self

Q4. Are we to leave on vacation?

- A) already
- B) altogether
- C) all together
- D) all ready

Q5. He is very careful. He..... his children to drive his car in rush hour traffic.

- A) does not allow
- B) did not allow
- C) allowed
- D) allow

Q6. The coach's insistence on fitness has become He yells at players all the time.

- A) emotional
- B) dilatory
- C) obsessive
- D) rational

Q7. They just reaching the office at 5 p.m. when I finished off my work.

- A) have been
- B) will be
- C) had been
- D) were

Q8. Would he like the dinner? I very hard to make it delicious.

- A) will be working
- B) will work
- C) worked
- D) had worked

Q9. Our group will be by your group at next intersection but the goal of both groups will remain same.

- A) joined
- B) replaced
- C) ignored
- D) influenced

Q10. The applauded enthusiastically after the performance was finished.

- A) audience
- B) spectators
- C) bystanders
- D) onlookers

Q11. She _____ for the upcoming tennis tournament.

- a. Trains
- b. Is training.
- c. Will training
- d. Is going to train.

Q12. I _____ New Zealand next year.

- a. go

- b. will go
- c. going
- d. will go to

Q13. There are some vacant rooms _____ in flats and shared houses.

- a. both
- b. between
- c. either
- d. neither

Q14. The sun rises _____ the east.

- a. in
- b. On
- c. from
- d. towards

Q15. Nitrogen gas is in abundance _____ the Earth.

- a. in
- b. On
- c. Above
- d. along

Q16. For good health, she _____ bed earlier.

- a. Should go
- b. Should go to
- c. Should goes
- d. Should goes to

Q17. If you have time, you _____ the nature museum.

- a. should visit
- b. should visited
- c. have to visit
- d. have to visited

Q18. It is our problem, not _____.

- a. their
- b. their's
- c. there
- d. there's

Q19. The number of guests at the party _____ amazing.

- a. was
- b. were
- c. had
- d. had have

Q20. _____ 600 and 800 B.C, Olympics were held in Athens, Greece.

- a. during
- b. unless
- c. until
- d. between

SECTION: 2 **BIOLOGY**

Guidelines

**This section has 40 questions, and each question has equal marks.
Click on Next to proceed further.**

Q21. Plants having foreign DNA incorporated into their cells are called

- (A) Transduced plants
- (B) Transgenic plants
- (C) Transformed plants
- (D) Xerophyte plants

Q22. Heat vaporization is expressed as calories per _____ vaporized.

- (A) Litre
- (B) Kilogram
- (C) Gram
- (D) Kilometre

Q23. Who used the technique of X-Ray diffraction to determine the structure of DNA?

- (A) Erwin Chargaff

- (B) Watson & Crick
- (C) M. Wilkins and R. Franklin
- (D) Alfred Harshey & Martha Chase

Q24. RNA is synthesized by DNA in a process known as:

- (A) Replication
- (B) Transcription
- (C) Reverse Transcription
- (D) Conjugation

Q25 Thylakoids are found in:

- (A) Chloroplasts
- (B) Golgi complex
- (C) Mitochondria
- (D) Nucleus

Q26. The virus is:

- (A) Facultative parasite
- (B) Obligate intracellular parasite
- (C) Saprophyte
- (D) Ectoparasite

Q27. Heterocysts are helpful in the fixation of atmospheric nitrogen in:

- (A) Bacteriophages
- (B) Cyanobacteria
- (C) Fungi
- (D) Land plants

Q28. Which of the following organisms is used as an experimental organism in research on photosynthesis as well as an alternative source of food?

- (A) Plasmodium

- (B) Ameoba
- (C) Chlorella
- (D) Rhizopus

Q29 Turn Over DO NOT WRITE ANYTHING HERE ix. Sexual phase has not been observed in:

- (A) Zygomycota
- (B) Basidiomycota
- (C) Ascomycota
- (D) Deuteromycota

Q30. Gametophyte is the dominant plant body in:

- (A) Marchantia
- (B) Rosa indica
- (C) Adiantum
- (D) Pinus

Q31. Which one of the following is not an eutherian mammal?

- (A) Whale
- (B) Opossum
- (C) Elephant
- (D) Horse

Q32. Hepatic and pancreatic secretion are also stimulated by a hormone called:

- (A) Insulin
- (B) Oxytocin
- (C) Secretin
- (D) Testosterone

Q33. Tiny thin walled ducts called parabronchi are present in the lungs of:

- (A) Cows

(B) Birds

(C) Man

(D) Frog

Q34. Which one group of the following organisms has not double circuit heart?

(A) Reptiles

(B) Birds

(C) Fishes

(D) Mammals

Q35. Antiserum is a serum containing:

(A) Antibiotics

(B) Antibodies

(C) Antigens

(D) Antiseptic

Q36. What type of pressure moves the sucrose and other substances in the sieve tube cells and then moves to sink?

(A) Atmospheric pressure

(B) Root pressure

(C) Hydrostatic pressure

(D) Blood pressure

Q37. Guttation is the loss of liquid water through:

(A) Phloem

(B) Cambium

(C) Hydathodes

(D) Endodermis

Q38. Breathing center is located in _____ part of the brain.

(A) Cerebellum

- (B) Medulla
- (C) Cerebrum
- (D) Spinal cord

Q39. Animals which excrete ammonia as the major nitrogenous waste product are called:

- (A) Ureotelic
- (B) Uricotelics
- (C) Ammoniotelic
- (D) Urethritis

Q40. Syphilis is caused by:

- (A) Proteus vulgaris
- (B) E. Coli
- (C) Klebsiella pneumoniae
- (D) Treponema palladium

Q41. _____ is the immobility and fusion of vertebral joints.

- (A) Sciatica
- (B) Arthritis
- (C) Spondylitis
- (D) Osteoarthritis

Q42. A patient with Myxedema would have elevated level of:

- (A) TSH
- (B) ACTH
- (C) T4
- (D) Calcitonin

Q43. Receptors which can detect changes in osmolarity of blood are:

- (A) Nociceptors
- (B) Mechanoreceptors

(C) Osmoreceptors

(D) Photoreceptors

Q44. The message which is transmitted across the synapse in the form of chemical messenger is:

(A) Synaptic cleft

(B) Neurotransmitter

(C) Synaptic delay

(D) Synaptic knobs

Q45. Duchenne patients lack a protein responsible for Duchenne muscular dystrophy.

(A) Action

(B) Myosin

(C) Myoglobin

(D) Dystrophin

Q46. Synthesis of a new DNA stand usually begins with a/an:

(A) RNA primer

(B) DNA ligase

(C) DNA primer

(D) Okazaki fragment

Q47. The process by which genetic information flows from genes to proteins is:

(A) Translation

(B) Transcription

(C) Mutation

(D) Gene expression

Q48. Which of these may be heterozygous?

(A) A Haploid cell

(B) An egg

(C) An organism with a dominant phenotype

(D) An organism with the recessive genotype

Q49. Albinism is recessive gene. A woman with an albino father marries an albino man, the proportion of her progeny is:

(A) 2 normal: 1 Albino

(B) All normal

(C) All albino

(D) 1 normal: 1 albino

Q50. The process by which species are replaced over time is:

(A) Ecological succession

(B) Climax

(C) Population

(D) Trophic level

Q51. An animal that carries a foreign gene that has been deliberately inserted into its genome is:

(A) Vector

(B) Transgenic animal

(C) Cultured animal

(D) Donor

Q52. What is the smallest unit of a DNA molecule that can be altered by a mutation and cause a change to the coding of a polypeptide?

(A) Base

(B) Codon

(C) Gene

(D) Nucleotide

Q53. In the equation, $\text{NH}_4 \rightarrow \text{NO}_3 \rightarrow \text{NO}_2 \rightarrow \text{N}_2$, the group of bacteria that have a role in the conversion is:

(A) Nitrosomonas & Clostridium

(B) Azobacter & Clostridium

(C) Nitrosomonas & Nitrobacter

(D) Pseudomonas & Clostridium

Q54. Which type of new vaccine production would be most important in the fight to eradicate measles in developing countries?

(A) a combined vaccine to combat it and other diseases

(B) a single vaccine, without the need for boosters

(C) a vaccine containing only live measles pathogens

(D) a vaccine containing monoclonal antibodies

Q55. Which of these can be used to cure infertility in couples where male partner has very low sperm count?

(a) IUD

(B) GIFT

(C) IUI

(D) None of these

Q56. The method of directly injecting a sperm into ovum in assisted reproductive technology is called

(a) GIFT

(B) ZIFT

(C) ICSI

(D) ET

Q57. Increased IMR and decreased MMR in a population will

(A) cause rapid increase in growth rate

(b) result in decline in growth rate

(C) not cause significant change in growth rate

(d) result in an explosive population.

Q58. Intensely lactating mothers do not generally conceive due to the

- (a) suppression of gonadotropins
- (b) hypersecretion of gonadotropins .
- (c) suppression of gametic transport
- (d) suppression of fertilization.

Q59. A national level approach to build up a reproductively healthy society was taken up in our country in

- (a) 1950s
- (b) 1960s
- (c) 1980s
- (d) 1990s

Q60. Emergency contraceptives are effective if used within,

- (a) 72 hrs of coitus
- (b) 72 hrs of ovulation
- (c) 72 hrs of menstruation
- (d) 72 hrs of implantation.

SECTION: 3

CHEMISTRY

Guidelines

This section has 40 questions, and each question has equal marks.

Click on Next to proceed further.

Q61. Bakelite is a polymer of phenol and _____

- (A) Methanol
- (B) Methanal
- (C) Alcohol
- (D) None of these

Q62. The isomers caused by difference in the position of same functional group in the same chain are termed as _____ isomers.

- (A) Chain
- (B) Functional group
- (C) Position
- (D) none of these

Q63. The general formula of alkyl halides is:

- (A) $C_nH_{2n+2}X$
- (B) $C_nH_{2n+1}X$
- (C) $C_nH_{2n+X}2$
- (D) None of these

Q64. Kipp's apparatus is used for the preparation of this gas,

- (A) H_2S
- (B) O_2
- (C) Cl_2
- (D) SO_3

Q65. In $KMnO_4$, oxidation number of Mn is:

- (A). +7
- (B) +6
- (C) +5
- (D) +4

Q66. The chlorination of methane (CH_4) is an example of:

- (A) Addition reaction
- (B) Substitution reaction
- (C) Elimination reaction
- (D) Oxidation reaction

Q67. The general formula of aldehyde is:

- (A) OH
- (B) COOH
- (C) RCOR
- (D) RCHO

Q68. Wurtz reaction will be applicable in the :

- (A) CH₂ CH₂
- (B) CHBr
- (C) CH₃Br
- (D) None of them

Q69. In general alkali metals act as

- (A) Reducing agents
- (B) Oxidizing agents
- (C) Both a & b
- (D) None of these

Q70. When alkyl halide is heated with alcoholic KOH _____ is formed.

- (A) Alkene
- (B) Alkyl Halides
- (C) Alkane
- (D) Alkyne

Q71. The chemical formula Al₂O₃ stands for:

- (A) Diaspore
- (B) Corundum
- (C) Bauxite
- (D) Gibbsite

Q72. Water gas is produced by passing steam over red hot coke at:

- (A) 800C°
- (B) 900C°
- (C) 600C°
- (D) 1000C°

Q73. Aldehyde is formed by oxidation of:

- (A) Primary Alcohol
- (B) Secondary Alcohol
- (C) Tertiary Alcohol
- (D) Ether

Q75. Tollen's reagent is:

- (A) Ammonical cuprous oxide
- (B) Ammonical silver nitrate
- (C) Ammonical silver oxide
- (D) Ammonical silver bromide

Q76. Non metals acts as:

- (A) Reducing agent
- (B) Bleaching agent
- (C) Oxidizing agent
- (D) Nitrating Agent

Q77. Tetra ethyl lead is used for reduce the _____ of the engine.

- (A) Knocking
- (B) etching
- (C) hydrogenation
- (D) Sublimation

Q78. Making of design on glass surface is known as

- (A) Knocking

- (B) Etching
- (C) Hydrogenation
- (D) Sublimation

Q79. It is a nucleophile:

- (A) OH-1
- (B) CN-1
- (C) SH-1
- (D) All of these

Q80. Ethanol can be prepared by the _____ of glucose:

- (A) Hydration
- (B) Hydrogenation
- (C) Oxidation
- (D) Fermentation

Q82. The hybridization in the carbon atom of methane is:

- (A) sp^3
- (B) sp^2
- (C) sp
- (D) sp^3

Q83. This will give Iodoform reaction on the treatment with Na_2CO_3 and I_2 :

- (A) Acetic acid
- (B) Acetone
- (C) Acetic Anhydride
- (D) Methanol

Q84. Only one of this compound given below obeys Markownikoff rule on reaction with

HBr:

- (A) $CH_3-CH=CH_2$

(B) $\text{CH}_2=\text{CH}_2$

(C) $\text{CH}=\text{CH}$

(D) $\text{CH}_3\text{-CH}=\text{CH-CH}_3$

Q85. Saturated Hydrocarbon containing a single bond are called

(A) Parafins

(B) Alkynes

(C) Proteins

(D) Olefines

Q86. Electronic configuration of Zn:

(A) $4s^1, 3d^{10}$

(B) $4s^0, 3d^9$

(C) $4s^0, 3d^{10}$

(D) $4s^2, 3d^{10}$

Q87. The mixture of "Al" and Fe_2O_3 is used in:

(A) Pyrolysis

(B) Thermite process

(C) Electrolysis

(D) Washing

Q88. The soul of chemistry is dealing with_____?

A. Internal structural changes in matter

B. Composition of matter

C. Properties of matter

D. Composition and properties of matter

Q89. The radioactive isotope of hydrogen is called_____?

A. tritium

B. deuterium

C. protium

D. ortho-hydrogen

Q90. Electron was discovered by?

A. Michael Faraday

B. James Maxwell

C. Yuri Gagarin

D. J.J Thomson

Q91. Sodium carbonate is produced by_____?

A. haber process

B. Amonia solvay process

C. decons process

D. lead chamber process

Q92. Which of the following is a substance?

A. Sea water

B. Brass

C. Tape water

D. Graphite

E. Sand

Q93. Some substances are good conductor of electricity in both the solid and liquid states. These substances are generally_____?

A. ionic substances

B. metallic substances

C. molecular solids

D. covalent network solids

Q94. All of the following substances are crystalline except_____?

A. Ice

B. Diamond

C. Sucrose

D. Plastic

Q95. Covalent network crystals have _____?

A. higher melting point than molecular crystals

B. lower melting point than molecular crystals

C. discrete molecules linked by Van der Waals forces

D. hydrogen bonding

Q96. What is a mixture of Potassium Nitrate Powdered Charcoal and Sulphur called?

A. Paint

B. Glass

C. Gun Powder

D. Cement

Q97. Diameter of an atom is in the order of _____?

A. 0.2m

B. 0.2mm

C. 0.2nm

D. 0.2pm

Q98. Mass spectrometer is used to determine Mass number of isotopes and _____?

A. Atomic number

B. Relative abundance

C. Electronic configuration

D. All of the above

Q99. The number of peaks obtained in mass spectrometry shows _____?

A. Relative abundance

B. Average mass of element

C. Number of isotopes

D. Relative isotopic mass

Q100. Molecular mass of water (18g) means _____?

- A. 1-mole molecules of water
- B. 1-gram molecule of water
- C. 3-gram atoms
- D. all