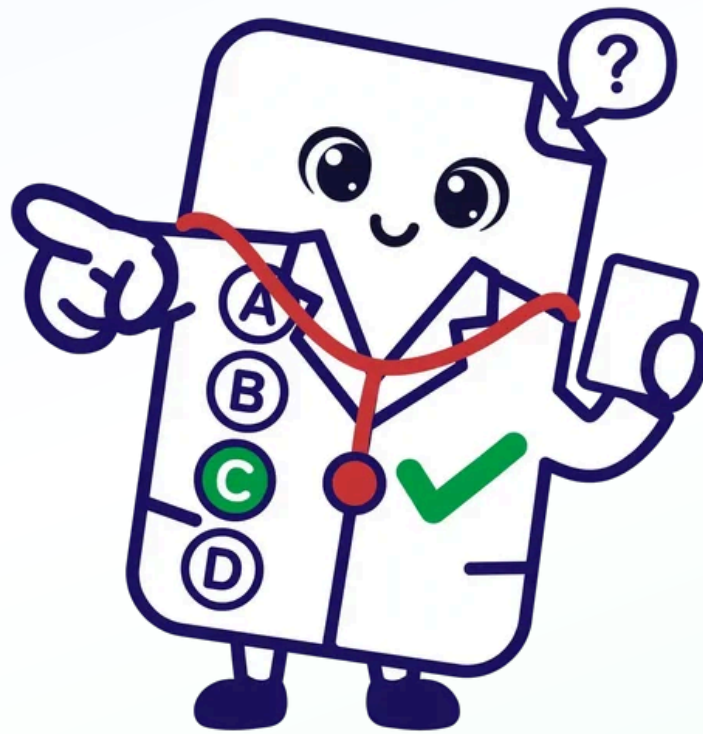




TestUstad.com

ETEA MDCAT (Khyber Pakhtunkhwa) Preparation Book 2026

A full model paper in the real ETEA MDCAT pattern, with answer key



180 MCQs

Real ETEA MDCAT subject split

Answer key + online explanations

How to use this book

1. Sit each model paper in one go, in 180 minutes, with a pen and the answer sheet of your choice.
2. Mark yourself with the answer key at the back.
3. Every answer in the key is a link. Tap it to read why that option is right on TestUstad, free.

Want this paper timed and graded for you?

Practise every ETEA MDCAT subject free, chapter by chapter, at testustad.com/exams/etea-mdcat

What is in this book

180 MCQs across one paper, each drawn in the same subject split as the real ETEA MDCAT paper:

- Biology: 81 MCQs per paper
- Chemistry: 45 MCQs per paper
- Physics: 36 MCQs per paper
- English: 9 MCQs per paper
- Analytical and Logical Reasoning: 9 MCQs per paper



MODEL PAPER 1 OF 1

ETEA MDCAT (Khyber Pakhtunkhwa)

180 MCQs · 180 minutes · answer key at the back

**Biology**

81 MCQs

1. Balantidium coli lives in the intestinal tract of:

- ☐ A Pigs and rats
- ☐ B Pigs and monkeys
- ☐ C Rats and dogs
- ☐ D Cats and sheep

2. Microtubules of spindle fibres are composed of a protein called

- ☐ A Tubulin
- ☐ B Actin
- ☐ C Myosin
- ☐ D Troponin

3. The following elements H,N,P and Mg are included in:

- ☐ A Macronutrients
- ☐ B Micronutrients
- ☐ C Trace elements
- ☐ D Minor elements

4. The study of fishes is called:

- ☐ A Ornithology
- ☐ B Ichthyology
- ☐ C Herpetology
- ☐ D Ethology

5. As the pH of the blood decreases, H⁺ ions increase, which combines with the protein part of hemoglobin, to decrease its ability to bind with:

- ☐ A O₂
- ☐ B CO₂
- ☐ C CO
- ☐ D H₂

6. The florescent pigments in the eyes of fruit fly is an example of:

- ☐ A Overdominance
- ☐ B Complete dominance
- ☐ C Incomplete dominance
- ☐ D Co-dominance

7. Which is an enzyme activator secreted by the intestinal glands:

- ☐ A Amylase
- ☐ B Pepsinogens
- ☐ C Enterokinase
- ☐ D Lipase

8. The descending aorta is bifurcated into two vessels, which further divide from the femoral artery that supplies blood to the thigh muscles of the legs:

- ☐ A iliac vein
- ☐ B iliac artery
- ☐ C temporal artery
- ☐ D Sciatic artery

9. Which component of a reflex arc connects the sensory neuron to the motor neuron within the spinal cord?

- ☐ A Receptor
- ☐ B Effector
- ☐ C Muscle fiber
- ☐ D Associative neuron

10. B.C.G vaccines are usually given to:

- ☐ A Children
- ☐ B Adults
- ☐ C Special populations
- ☐ D All of the above

11. The physical method used to control Bacteria is

- ☐ A Antiseptics
- ☐ B Disinfectants
- ☐ C Pasteurization
- ☐ D Antibiotics

12. How many atoms of oxygen in R.N.A. are greater than D.N.A.?

- ☐ A One
- ☐ B Two
- ☐ C Three
- ☐ D Four

13. During peritoneal dialysis, dialysis fluid is introduced into which part of the human body?

- ☐ A Liver
- ☐ B Abdomen
- ☐ C Kidney
- ☐ D Pancreas

14. "Ball and socket" joint is present at:

- ☐ A Shoulder
- ☐ B Wrist
- ☐ C Elbow
- ☐ D Knee

15. Which metabolic pathway is common to both fermentation and cellular respiration:

- ☐ A Glycolysis
- ☐ B Krebs cycle
- ☐ C Synthesis of acetyl Co-A
- ☐ D Electron transport chain

16. First step of viral replication is:

- ☐ A Entry
- ☐ B Assembly
- ☐ C Uncoating
- ☐ D Adsorption or Attachment

17. In aquatic ecosystem, human activities may accelerate the process of:

- ☐ A Eutrophication
- ☐ B Photosynthesis
- ☐ C Decomposition
- ☐ D Recycling

18. Which one of the following events is likely to take place, if the nuclei from an 8- celled stage of an embryo are transplanted into enucleated eggs?

- ☐ A Recipient egg dies
- ☐ B Donor nuclei die in the new environment
- ☐ C Cleavage occurs but is arrested after some time
- ☐ D Formation of the viable embryo in the recipient eggs

19. Hormone inhibin is produced by:

- ☐ A Hypothalamus
- ☐ B Pituitary gland
- ☐ C Prostate
- ☐ D Sertoli cells

20. Pepsin, protein digesting enzymes, sets best pH:

- ☐ A 3.00
- ☐ B 4.50
- ☐ C 2.00
- ☐ D 6.00

21. According to Hardy Weinberg Theorem, which one of the following factor cannot change allelic frequency?

- ☐ A Mutation
- ☐ B Random mating
- ☐ C Selection
- ☐ D Gene flow

22. Pulses are present in the family:

- ☐ A Caesalpinaceae
- ☐ B Fabaceae
- ☐ C Gramineae
- ☐ D Mimosaceae

23. All types of plastids are produced from:

- ☐ A Chloroplastids
- ☐ B Proplastids
- ☐ C Chromoplastids
- ☐ D Leucoplastids

24. Carotenoids absorb light of:

- ☐ A Yellow-orange range
- ☐ B Yellow-red range
- ☐ C Orange-red range
- ☐ D Blue-violet range

25. Laiba is trying to determine the percentage of protein in bears because she is a

- ☐ A Biochemist
- ☐ B Microbiologist
- ☐ C Physiologist
- ☐ D Mycologist

26. The total inside capacity of lungs is _ for man.

- ☐ A 6.7 litres
- ☐ B 2.5 litres
- ☐ C 7 litres
- ☐ D 5-6 litres

27. If father of a baby is hemophilic and mother is a carrier then chances if the baby inheriting the disease will be:

- ☐ A 0%
- ☐ B 50%
- ☐ C 75%
- ☐ D 100%

28. An acinus is composed of:

- ☐ A 10-20 Acinars
- ☐ B 20-40 Acinars
- ☐ C 20-30 Acinars
- ☐ D 30-40 Acinars

29. The valves between the right atrium and right ventricle is called:

- ☐ A bicuspid valve
- ☐ B tricuspid valve
- ☐ C pulmonary valve
- ☐ D semi lunar valve-

30. Tetanus is an infection of

- ☐ A Respiratory system
- ☐ B Nervous system
- ☐ C Circulatory system
- ☐ D Bones and muscles

31. What describes a non-specific immune response?

- ☐ A Activation of killer T lymphocytes by infected cells
- ☐ B Cloning of B lymphocytes to form plasma cells
- ☐ C Ingestion of a bacterial cell by a neutrophil
- ☐ D Presentation of antigen on the cell surface of macrophages

32. The primers used in polymerase chain reaction has a sequence of bases

- ☐ A 8
- ☐ B 12
- ☐ C 16
- ☐ D 20

33. How many different trinucleotides can be made using the DNA nucleotides?

- ☐ A 4
- ☐ B 16
- ☐ C 20
- ☐ D 64

34. Nitrogenous wastes are produced as a result of:

- ☐ A Photosynthesis
- ☐ B Ingesiton
- ☐ C Assimilation
- ☐ D Deamination

35. Myoglobin occurs in

- ☐ A Blood
- ☐ B Liver
- ☐ C Spleen
- ☐ D Muscles

36. Which one of the following in glycolysis is a hydrogen carrier?

- ☐ A ADP
- ☐ B PGAL
- ☐ C DPGA
- ☐ D NAD

37. Polio immunization vaccine is effective:

- ☐ A 50%
- ☐ B 60%
- ☐ C 80%
- ☐ D 90%

38. The organisms of the third trophic level are:

- ☐ A Primary consumer
- ☐ B Primary producer
- ☐ C Tertiary consumer
- ☐ D Secondary consumer

39. Which one of the following is the additional function of the embryonic membranes?

- ☐ A Respiration and reproduction
- ☐ B Reproduction and nourishment
- ☐ C Strong of waste products
- ☐ D Respiration and storage of waste products

40. Which of the following will happen if fertilization does not occur?

- ☐ A Menopause starts
- ☐ B FSH secretion is increased
- ☐ C Corpus luteum degenerates
- ☐ D Progesterone secretion is increased

41. Which of the following is an inactive enzyme without its cofactor?

- ☐ A Coenzyme
- ☐ B Apoenzyme
- ☐ C Holoenzyme
- ☐ D Denatured enzyme

42. Large population size, random mating, no mutation and no emigration or immigration are the postulates of:

- ☐ A Hardy-Weinberg Theorem
- ☐ B Mendel's law of independent assortment
- ☐ C Mendel's law of segregation
- ☐ D Theory presented by Schleiden and Schwann

43. Which of the following damages wooden ships?

- ☐ A Sepia.
- ☐ B Teredo.
- ☐ C Limax.
- ☐ D Ostrea.

44. Microvilli are also called:

- ☐ A Leaf veins
- ☐ B Cristae
- ☐ C Capillaries
- ☐ D Brush border

45. Macronutrients are:

- ☐ A K-Mg-N-P
- ☐ B Cu-Mg-Mn-S
- ☐ C Mn-S-P-Cu
- ☐ D Mg-Mn-Ca-P

46. In humans, the largest body organ is:

- (A) Liver
- (B) Skin
- (C) Brain
- (D) Lungs

47. Hemoglobin can absorb maximum oxygen at sea level, which is _ ml/100 ml of blood.

- (A) 15
- (B) 19
- (C) 19.6
- (D) 20
- (E) 25

48. If a normal person marries with colour blind female what will be the possibility of normal male child:

- (A) 0%
- (B) 25%
- (C) 50%
- (D) 75%

49. Digestion of the food component start from oral cavity?

- (A) Proteins
- (B) Fats
- (C) Carbohydrates
- (D) Vitamins

50. The right atrium of the heart usually receives the

- (A) Deoxygenated Blood
- (B) Oxygenated Blood
- (C) Filtered Blood
- (D) Non-Filtered Blood

51. Find mismatch

- (A) Thyroid gland-T3 and T4
- (B) Parathyroid gland-Calcitonin
- (C) Pancreas-Insulin
- (D) Gonads-Testes and ovaries

52. A non-specific defense reaction to tissue damage caused by injury or infection is known as:

- (A) active immunity
- (B) inflammatory response
- (C) c
- (D) d

53. The modified plasmid or phage DNA is called:

- (A) lone DNA
- (B) Recombinant DNA
- (C) cDNA
- (D) rDNA

54. All of the following are carbohydrate EXCEPT:

- (A) Glycogen
- (B) Collagen
- (C) Starch
- (D) Cellulose

55. If body is overheated, the body temperature can be regulated by

- (A) More sweating, vasoconstriction
- (B) Less sweating, vasodilation
- (C) Less sweating, vasoconstriction
- (D) More sweating, vasodilation

56. Bones are held together of the joints by :

- (A) Tendons
- (B) Smooth muscles
- (C) Ligaments
- (D) Nerves

57. Cyanides are potent poisons of the living organism and can kill by inhibiting __, essential for cellular respiration:

- (A) Cytochrome oxidases
- (B) Dehydrogenases
- (C) Hydrolases
- (D) Nucleases

58. For defense against a virus attack, the body produces:

- (A) Antibodies
- (B) Histamines
- (C) Antigens
- (D) Interferons

59. Corpuscular animals are active during:

- (A) Night
- (B) Day
- (C) Twilight
- (D) Spring

60. Muscles develop from:

- (A) ectoderm
- (B) mesoderm
- (C) endoderm
- (D) all of the above

61. Gonorrhea is a sex disease caused by:

- (A) Bacteria
- (B) Virus
- (C) Parasite
- (D) None of the above

62. Effect of increased substrate concentration on enzyme activity:

- (A) Decrease the rate of reaction
- (B) Increase the reaction rate until all active sites are saturated
- (C) Have no effect on the reaction rate
- (D) Increase the rate of reaction in a straight diagonal line

63. Evolutionary relationships amongst species are reflected in their:

- (A) DNA and proteins
- (B) DNA and gene
- (C) RNAs and proteins
- (D) DNA and RNAs

64. Round worms, which have body cavities that are partially lined with mesoderm, are classified as:

- (A) Acoelomate
- (B) coelomates
- (C) Pseudocoelomates
- (D) Deuterostomes

65. According to the fluid mosaic model of the cell membrane, which zone is embedded inside?

- (A) Hydrophobic
- (B) Hydrophilic
- (C) Globular
- (D) Filamentous

66. Plant cells synthesize sugar in the;

- (A) Thylakoid
- (B) Grana
- (C) Stroma
- (D) Christa

67. The part of the body which forms a structural and functional unit and is composed of more than one tissue is called

- (A) Organ
- (B) Organelle
- (C) Organ system
- (D) Whole organism

68. Which of the following parts of the respiratory system has no cartilage?

- (A) Larynx
- (B) Trachea
- (C) Bronchioles
- (D) Bronchi

69. When a haemophilic carrier woman marries a normal man, who among her offspring may be affected?

- (A) All her children
- (B) All her daughters
- (C) Half of her sons
- (D) None of these options

70. Erepsin acts upon:

- (A) Polypeptides
- (B) Carbohydrates
- (C) Dipeptides
- (D) Fats

71. Elastic fibres are absent in the walls of _.

- (A) Aorta
- (B) Arteries
- (C) Veins
- (D) Both options A and B

72. A non-connective tissue is:

- (A) Areolar tissue
- (B) Tendon
- (C) Neuron
- (D) Ligament

73. The method which helps in developing immunity against bacteria is:

- (A) Radiotherapy
- (B) Chemotherapy
- (C) Vaccination
- (D) Antibiotics

74. DNA segments of different lengths can be separated by a process of:

- (A) Western blotting
- (B) Northern blotting
- (C) Autoradiography
- (D) Gel electrophoresis

75. Which of the following is a peptide bond?

- (A) -C-N
- (B) -C-O
- (C) -C-P
- (D) -C-S

76. In the juxtamedullary nephron, a network of blood capillaries parallel to the loop of Henle is called:

- (A) Netted capillaries
- (B) Afferent capillaries
- (C) Peritubular capillaries
- (D) Vasa recta

77. Which feature is absent from cardiac muscles?

- (A) Intercalated disc
- (B) Multinucleate cells
- (C) Light and dark bands
- (D) Contractile sarcomere

78. FADH₂ is produced during which step of Krebs cycle?

- (A) When Isocitrate is converted into alpha - ketoglutarate
- (B) When alpha - Ketoglutarate is converted into Succinate
- (C) When Succinate is converted into Fumarate
- (D) When Fumarate is converted into Maltose

79. The life cycle in which the phage kills the bacteria is known as:

- (A) Transduction
- (B) Temperate phage cycle
- (C) Lytic cycle
- (D) Lysogenic phage cycle

80. The nutrient cycles are also called:

- (A) Biogeochemical cycles
- (B) Bioelement cycles
- (C) Biochemical cycles
- (D) Geochemical cycles

81. All of the following are derived from mesoderm except:

- (A) Muscles
- (B) Liver
- (C) Gonads
- (D) Blood vessels



Chemistry

45 MCQs

82. α-amino acids are compounds having carboxylic acid as well as amino functional groups attached to:

- (A) Any H-atom in the molecule
- (B) Same carbon atom
- (C) Alternate carbon atoms
- (D) Neighboring carbon atoms

83. What is the color of the precipitate when Brady's reagent is used to test a benzaldehyde?

- (A) Green
- (B) Brown
- (C) Magenta
- (D) Red

84. In propene pi-bond is formed by sideway overlap of:

- (A) s-orbitals
- (B) p-orbitals
- (C) sp^3 hybrid orbitals
- (D) sp^2 hybrid orbitals

85. Which compound is formed when Ammonium hydroxide is added to silver chloride?

- (A) $[Ag(NH_3)_2]Cl$
- (B) $[Ag(NH_3)]Cl$
- (C) $[Ag(NH_3)_4]Cl$
- (D) $[Ag(NH_3)_6]Cl$

86. Forces controlling the reactions are proportional to the product of the active masses (concentration) of chemicals. The above statement is of:

- (A) Raoult's Law
- (B) Le Chatelier's Principle
- (C) The law of conservation of energy
- (D) The law of mass action

87. 3-Ethyl-2-Pentene on ozonolysis gives:

- (A) 2-Pentanone
- (B) pentanol
- (C) 3-Pentanone and Ethanal
- (D) 7-Heptanone

88. Which is not correct about polyvinyl chloride?

- (A) It is used in large scale production of cable insulator
- (B) It is a copolymer
- (C) It is a homopolymer
- (D) It is used in the manufacturing of pipes

89. Which one is a strong nucleophile:

- (A) $C_6H_5O^-$
- (B) $H-O^-$
- (C) NH_3
- (D) $C_2H_5O^-$

90. A gaseous mixture contains 9.6% NH_3 , 22.6% N_2 and 67.8% H_2 gases. If the total pressure is 50 atm, then the partial pressure of H_2 is

- (A) $67.8 \times 100 / 50$
- (B) $50 \times 100 / 100$
- (C) $67.8 \times 50 / 100$
- (D) $67.8 + 50 / 100$

91. Chlorine upon reaction in cold NaOH yields:

- (A) $NaCl$, $NaClO$, H_2O
- (B) $NaCl$, $NaClO_3$, H_2O
- (C) $NaClO$, $NaClO_3$, H_2O
- (D) $NaCl$, H_2O

92. When nitric oxide reacts with ozone, the order of reaction will be:

- (A) 2nd
- (B) 3rd
- (C) 1st
- (D) Zero

93. The electrical conductivity of NaCl crystal is:

- (A) More than NaBr crystal
- (B) Less than NaBr crystal
- (C) Equal to NaBr crystal
- (D) NaCl crystal doesn't conduct electric current

94. Which of the following molecule shows cis-trans isomers?

- (A) C_2H_4
- (B) $C_2H_2Cl_4$
- (C) $C_2H_2Br_2$
- (D) C_2HCl_3

95. A neutral atom A has the electronic configuration: $1s^2 2s^2 2p^6 3s^2 3p^6 4s^1$. It will gain or lose electron/s to form most probably an ion of valence:

- (A) -2
- (B) -1
- (C) +2
- (D) +1

96. Boiling point of a liquid is a temperature at which:

- (A) Surface tension is greater than the atmospheric pressure
- (B) Viscosity is less than the atmospheric pressure
- (C) Vapor pressure equals the atmospheric pressure
- (D) Viscosity equals the atmospheric pressure

97. The characteristic signal of carbonyl carbon if acetone in I.R spectrum will be detected at:

- (A) 3200cm^{-1}
- (B) 1200cm^{-1}
- (C) 800cm^{-1}
- (D) 1720cm^{-1}

98. The osmotic pressure of dilute solution is given below by relationship:

- (A) $\pi = iCRT$
- (B) $\pi = RCT/M$
- (C) $\pi = nRT/V$
- (D) $\pi = PV = nRT$

99. Which of the following does not show variable valency?

- (A) Mn
- (B) Fe
- (C) Zn
- (D) Cr

100. Esterification occurs in the presence of:

- (A) Aldehydes and ketone
- (B) Alcohols and ketone
- (C) Carboxylic acid and alcohols
- (D) Carboxylic acid and aldehydes

101. Which one of the following is most ionic?

- (A) NaCl
- (B) $MgCl_2$
- (C) KCl
- (D) $AlCl_3$

102. Specific heat of water is:

- (A) 4.18 J/g/°C
- (B) 9.82 J/g/°C
- (C) 6.04 J/g/°C
- (D) 8.47 J/g/°C

103. A limiting reactant is the one which:

- (A) Is mostly a cheaper substance and taken in larger quantity
- (B) Is consumed earlier and controls the amount of product formed in a chemical reaction
- (C) Gives greatest number of moles of products
- (D) Is left behind after the completion of reaction

104. Tetraethyl lead ($\text{C}_2\text{H}_5\text{Pb}$) is used as an antiknock agent and abandoned because of its hazardous product during the combustion of fuel. The hazardous product is

- (A) CO_2
- (B) CO
- (C) Lead
- (D) Free radical ethyne (C_2H_2)

105. Which of the following is a secondary alcohol?

- (A) Option A
- (B) Option B
- (C) Option C
- (D) Option D

106. The process of filtration is used to separate particles _ from liquids.

- (A) Radial.
- (B) Angular.
- (C) Insoluble.
- (D) Soluble

107. Coagulation of proteins may be caused by:

- (A) Heat
- (B) Change in pH
- (C) Heavy metal salts
- (D) All of the above

108. All of the following tests are used to identify aldehydes except

- (A) Tollen's test
- (B) Fehling test
- (C) Bayer test
- (D) Benedict test

109. Carbon atom in carbonyl is:

- (A) sp hybridized
- (B) sp^2 hybridized
- (C) sp^3 hybridized
- (D) None of the above

110. A metallic oxide when added to water would most likely form an

- (A) Base
- (B) Acid
- (C) Salt
- (D) Basic anhydride

111. A salt AB ionizes as $AB = A^+ + B^-$. The solubility product for the salt AB is 4.0×10^{-4} . The molar solubility of the salt is:

- (A) 4.0×10^{-4} M (B) 2.0×10^{-2} M
(C) 8.0×10^{-4} M (D) 2.0×10^{-4} M

112. Which of the following species deactivate the benzene ring when attached to benzene ring?

- (A) C_2H_5 (B) SO_3H
(C) NH_2 (D) CH_3

113. Macromolecules are described as large molecules built up from small repeating units known as:

- (A) Monomers (B) Isomers
(C) Metameres (D) Tautomer

114. Select the nucleophile from the following examples:

- (A) NO_2 (B) NH_3
(C) NO_2^+ (D) NH_4^+

115. Which of the following is true about pressure for an ideal gas at -273 degrees Celsius?

- (A) $P = 1$ atm (B) $P = 2$ atm
(C) $P = 3$ atm (D) $P = 0$ atm

116. Which of the following cannot be displaced from their salt solution by cell?

- (A) Ag (B) Au
(C) Al (D) Zn

117. The rate equation determined experimentally for this reaction: $(CH_3)_3C-Br + H_2O \rightarrow (CH_3)_3C-OH + HBr$, is $Rate = k[(CH_3)_3CBr]$. Hence it is which of the following?

- (A) Fractional Order (B) Pseudo First Order
(C) First Order (D) Second Order

118. Coordination number of an ion in:

- (A) 4 (B) 6
(C) 8 (D) 2

119. All compounds are organic except

- (A) $(H_2N)_2CO$ (B) NH_4CNO
(C) CH_2NO_2 (D) CH_4

120. The mass of electron is:

- ☐ A 1838 times more than mass of proton
- ☐ B 1836 times less than mass of proton
- ☐ C 1836 times more than mass of neutron
- ☐ D 1836 times more than mass of hydrogen atom

121. What is the colour of iodine in the non polar solvent, cyclohexane?

- ☐ A Black
- ☐ B Brown
- ☐ C Purple
- ☐ D Yellow

122. How many types of "NMR" protons are there in Isopropyl chloride?

- ☐ A 2
- ☐ B 6
- ☐ C 4
- ☐ D 8

123. If we pass current through the sucrose solution the galvanometer will not show any deflection because sucrose molecules:

- ☐ A Move towards cathode
- ☐ B Move towards anode
- ☐ C React with water
- ☐ D Remain neutral

124. Ethylene diamine tetra acetate ion (EDTA) is a polydentate ligand, it bonds to central metal atom through:

- ☐ A Two of its atoms
- ☐ B Three of its atoms
- ☐ C Four of its atoms
- ☐ D Six of its atoms

125. Carboxylic acid reacts readily with alcohols in the presence of catalytic amounts of mineral acids to yield compounds called

- ☐ A Azides
- ☐ B Esters
- ☐ C Ketones
- ☐ D Ethers

126. Select the correct order in ionic behavior:

- ☐ A $\text{AlF}_3 > \text{AlBr}_3 > \text{AlCl}_3 \gg \text{AlI}_3$
- ☐ B $\text{AlCl}_3 > \text{AlF}_3 > \text{AlBr}_3 > \text{AlI}_3$
- ☐ C $\text{AlCl}_3 > \text{AlBr}_3 > \text{AlI}_2 > \text{AlF}_3$
- ☐ D $\text{AlF}_3 > \text{AlCl}_3 > \text{AlBr}_3 > \text{AlI}_3$



Physics

36 MCQs

127. Which of the following stores electrical potential energy?

- ☐ A Capacitor
- ☐ B Conductor
- ☐ C Inductor
- ☐ D Generator

128. A vector of magnitude 20 is added to a vector of magnitude 25. The magnitude of this sum might be:

- (A) Zero
- (B) 3
- (C) 12
- (D) 45

129. An ideal transformer steps up or steps down:

- (A) Energy
- (B) AC voltage
- (C) DC voltage
- (D) Power

130. Resistance of a wire is 'R' ohms. The wire is stretched to four times its length, then its resistance in ohms is

- (A) $R/4$
- (B) $4R$
- (C) $16R$
- (D) $R/2$

131. If diamagnetic substance is brought near north or south pole of a bar magnet, it is:

- (A) Attracted by poles
- (B) Attracted by North pole & repelled by south pole
- (C) Attracted by south pole & repelled by North pole
- (D) Repelled by the poles

132. Velocity of electron moving in first orbit of hydrogen is:

- (A) 2.19×10^7 m/sec
- (B) 2.18×10^7 m/sec
- (C) 2.2×10^8 m/sec
- (D) 2.19×10^6 m/sec

133. The best shield against X-rays to absorb it is

- (A) Lead
- (B) Steel
- (C) Iron
- (D) Copper

134. The consumption of energy by 60-watt bulb in 2 seconds is:

- (A) 20 J
- (B) 120 J
- (C) 30 J
- (D) 0.02 J

135. Which phenomenon does NOT verify particle nature of light?

- (A) Photoelectric effect
- (B) Compton effect
- (C) Pair Production
- (D) Diffraction

136. Elections remained as minority carriers in the material:

- (A) N-type
- (B) P-type
- (C) Conductor
- (D) All of the above

137. The average translational kinetic energy for molecule of an ideal gas is given by:

- (A) A
- (B) B
- (C) C
- (D) D

138. The ratio of moment of inertia of two objects 'A' and 'B' is 2:3. Which one of the following is the ratio of torques of 'A' and 'B' respectively if both are being rotated with constant angular acceleration?

- (A) 3:4
- (B) 2:3
- (C) 3:2
- (D) 4:3

139. A phase difference of 90 degrees is equal to:

- (A) π radians
- (B) $\pi/2$ radians
- (C) 2π radians
- (D) $\pi/4$ radians

140. The slope of displacement-time graph is:

- (A) Velocity
- (B) Displacement
- (C) Acceleration
- (D) Distance

141. Torricelli's theorem be written as:

- (A) $v_2 = \sqrt{2g(h_1 - h_2)}$
- (B) $v_2 = \sqrt{g(h_2 - h_1)}$
- (C) $v_2 = \sqrt{2g(h_2 - h_1)}$
- (D) $v_2 = \sqrt{g(h_1 - h_2)}$

142. The speed of sound in air does not depend on

- (A) Density of medium
- (B) Pressure
- (C) Temperature
- (D) Moisture

143. The potential of the two plates of a capacitor are +10 V and -10 V the charge on one of the plates is 40C . The capacitance of the capacitor is :

- (A) 2 F
- (B) 4 F
- (C) 0.5 F
- (D) 0.25 F

144. If $\hat{n}$ is unit vector in direction of $\vec{A}$ then:

- (A) $\hat{n} = \vec{A} / |\vec{A}|$
- (B) $\hat{n} = (\vec{A} \cdot |\vec{A}|) -$
- (C) $\hat{n} = \vec{n} \cdot \vec{A}$
- (D) $\hat{n} = \vec{A} / A$

145. We have two coils placed close to each other. When we switch on the battery connected to primary coil while keeping the sliding contact of rheostat at fixed position, the reading of Galvanometer:

- (A) First increases and then becomes zero
- (B) First increases and then becomes constant at some value
- (C) Increases with the passage of time
- (D) Remains zero

146. If two electrons are passing across a point in 2 seconds then the current following will be:

- (A) One ampere
- (B) Two ampere
- (C) 1.6×10^{19} amperes
- (D) 1.6×10^{-19} amperes

147. The force 'F' on a charged particle 'q' moving with velocity ; v' parallel to magnetic field 'B' is given by:

- (A) $F = qvB$
- (B) $F = qE$
- (C) $F = 0$
- (D) $F = mv^2/r$

148. The part of the electromagnetic spectrum in which Lyman series lies is:

- (A) Visible region
- (B) Infrared region
- (C) Ultraviolet region
- (D) X-rays

149. The target of an X-ray tube is made up of which metal?

- (A) Iron
- (B) Nickel
- (C) Brass
- (D) Tungsten

150. The work done by the gravitational force on an object as it moves from a reference level to a higher point is:

- (A) Always positive
- (B) Always negative
- (C) Zero
- (D) Depends on the path taken

151. Cesium coated oxidised silver emits electrons for _ light.

- (A) Infrared.
- (B) Ultraviolet.
- (C) Visible.
- (D) Green.

152. The current gain of a transistor having a collector current of 10 mA and a base current of 40 A is:

- (A) 2.5
- (B) 25
- (C) 250
- (D) 2500

153. Absolute zero is equivalent to:

- (A) 0K
- (B) -273.15 C
- (C) -459.4 F
- (D) All of these

154. The number of revolutions in 3π radians is:

- (A) 1/60
- (B) 3/2
- (C) 2
- (D) 6

155. A cathode ray oscilloscope is displaying an AC signal. If one wave is completed in 2 cm along X-axis and time-base setting is 10 ms/cm, then frequency of AC signal will be:

- (A) 100 Hz
- (B) 50 Hz
- (C) 20 Hz
- (D) 10 Hz
- (E) 200 Hz

156. In a perfectly elastic collision:

- (A) Only momentum is conserved
- (B) Only total energy is conserved
- (C) Only kinetic energy is conserved
- (D) Momentum, kinetic energy, and total energy are all conserved.

157. A fluid is flowing through a tube. To undergo transition from laminar to turbulent flow its velocity must be:

- (A) Slightly less than critical velocity
- (B) Equal to critical velocity
- (C) Greater than critical velocity
- (D) Increasing gradually but less than critical velocity

158. The number of loops in stationary waves depends upon:

- (A) velocity of waves
- (B) wavelength of waves
- (C) nature of the medium
- (D) frequency of waves

159. The grid in the cathode ray oscilloscope _.

- (A) Controls the number of waves
- (B) Controls the brightness of the spot formed
- (C) Accelerates electrons
- (D) Has positive potential with respect to the cathode

160. If $A, B = 1/2 AB$ then angle between A and B is

- (A) Zero
- (B) 30
- (C) 60
- (D) 90

161. The quantity that remains constant in a transformer is

- (A) current
- (B) voltage
- (C) resistance
- (D) power

162. A 5 ohm resistor is indicated by a single _ colour band around its body.

- (A) Red
- (B) Green
- (C) Blue
- (D) Brown



English

9 MCQs

163. Select the NEAREST CORRECT MEANING of the given word: INSCRUTABLE

- (A) Immoral (B) Unethical
(C) Enigmatic (D) Unaccountable

164. When she came _ senses, she asked to see her son.

- (A) In (B) To
(C) At (D) Into

165. Identify the incorrect segment: The prime minister fired a broadside at the opposition leaders. A few of his remarks were not up at the mark.

- (A) of (B) were
(C) up (D) at

166. The manager accepted the cashier's _____ for coming late.

- (A) expalanation (B) explanation
(C) explnasion (D) explanacion

167. Select the nearest correct meaning of the given word: STALWART

- (A) Loyal (B) Lazy
(C) Lacking strength (D) High

168. Choose the correctly structured sentence.

- (A) Mr. Shan. with his family together goes to England.
(B) Mr. Shan, together with his family, goes to England.
(C) Mr. Shan. together with his farni y, go to England.
(D) Mr. Shan, with his family, go to England together

169. A reeling road, a rolling road, that rambles round the shire. Which poetic device has!Metaphor Alliteration Simile Allusion been used in this line?

- (A) Metaphor (B) Alliteration
(C) Simile (D) Allusion

170. In each of the following questions, four alternative sentences are given. Choose the CORRECT one and fill in the Circle corresponding to that letter in the MCQ Response Form.

- (A) They felt bad while leaving their friends.
(B) They felt very badly about leaving their friends.
(C) They felt badly about leaving their friends.
(D) They felt badly while teaving their friends.

171. Select the NEAREST CORRECT MEANING of the given word: RECONNOITRE

- (A) Patrol
- (B) Arcane
- (C) Exhort
- (D) Falter



Analytical and Logical Reasoning

9 MCQs

172. Which was the 1st Ghazwa of Islam:

- (A) Abwa
- (B) Badar
- (C) Khandaq
- (D) Mota

173. Some bags are pouches. All pouches are cases. No cases are purses. Which of the following conclusions are NECESSARILY TRUE? CONCLUSIONS: I. Some pouches are purses. II. Some bags are cases. III. No bags are purses.

- (A) I and II
- (B) I and III
- (C) II
- (D) II and III

174. Read the following and choose the correct answer: Drake was wearing a blue shirt with black jeans and brown shoes. John was wearing a red shirt with black jeans and black shoes. Ahmad was wearing black jeans, a blue or red shirt, and shoes that were not black. Who copied drake?

- (A) Ahmad
- (B) John
- (C) Drake
- (D) Cannot elicit from given information

175. Read the following statements and identify the best cause and effect relation. (I) For the past four years, the district's literacy rate has been rising. (II) The district administration organise a thorough training program for the volunteers working on the literacy campaign

- (A) II is the cause of I is its effect
- (B) I is the cause and II is its effect
- (C) I and II are effects of some common cause
- (D) I and II are both effects of independent causes

176. In the following question, a statement is given followed by four inferences. You have to decide which of the given Inferences can definitely be drawn from the given statement. Indicate your answer. Statement: Most dresses in that shop are expensive. Inferences: I. Some dresses in that shop are expensive. II. There are cheap dresses also in that shop. III. Handloom dresses in that shop are cheap. IV. There are no cheap dresses available in that shop.

- (A) Only I follows
- (B) Only II follows
- (C) Only III follows
- (D) Only IV follows
- (E) None follows

177. If the area of a circle is equal to its circumference the radius of this circle is:

- (A) 1
- (B) 2
- (C) 3
- (D) 4

178. UDOMETER is coded as DUMOTERE then how will SUBLEASE be coded?

- (A) USBAELES
- (B) USLBESAE
- (C) USLBAEES
- (D) USLBEAES

179. The rates of interest on Post office recurring deposit accounts have been increased with effect from 1st March. This has been done to attract more deposits. Course of Action I. Efforts should also be made to make the public aware about this increase in the rate of Interest. II. If the deposits don't increase in next six months, the rate of interest should be further Increased.

- (A) Only conclusion I follows
- (B) Only conclusion II follows
- (C) Neither I nor II follows
- (D) Both conclusions I and II follow

180. P and Q are M's parents. M and N are siblings. Q is N's mother. What is P to M?

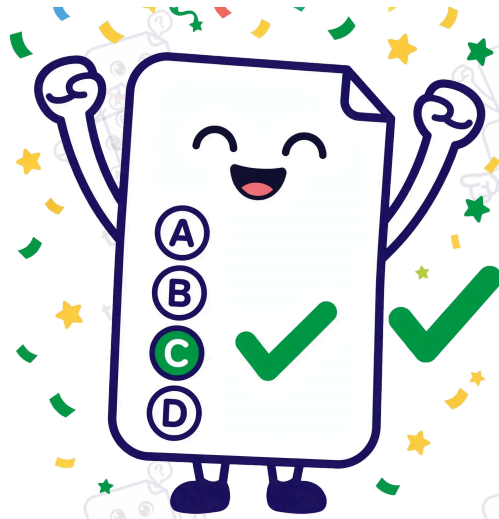
- (A) Mother
- (B) Father
- (C) Sister
- (D) Brother

Answer key

Tap any answer to open its full explanation on TestUstad.

Model Paper 1

1	B	2	A	3	A	4	B	5	A	6	A	7	C	8	B	9	D	10	A
11	C	12	A	13	B	14	A	15	A	16	D	17	A	18	D	19	D	20	C
21	B	22	B	23	B	24	D	25	A	26	D	27	B	28	B	29	B	30	B
31	C	32	D	33	D	34	D	35	D	36	D	37	D	38	D	39	D	40	C
41	B	42	A	43	B	44	D	45	A	46	B	47	D	48	A	49	C	50	A
51	B	52	B	53	B	54	B	55	D	56	C	57	A	58	D	59	C	60	B
61	A	62	B	63	A	64	C	65	A	66	C	67	A	68	C	69	C	70	C
71	C	72	C	73	C	74	D	75	A	76	D	77	B	78	C	79	C	80	A
81	B	82	B	83	D	84	B	85	A	86	D	87	A	88	B	89	B	90	C
91	A	92	A	93	D	94	C	95	D	96	C	97	D	98	B	99	C	100	C
101	C	102	A	103	B	104	C	105	A	106	C	107	C	108	C	109	B	110	A
111	B	112	B	113	A	114	B	115	D	116	D	117	B	118	A	119	B	120	B
121	C	122	B	123	D	124	D	125	B	126	D	127	A	128	D	129	B	130	C
131	D	132	D	133	A	134	B	135	D	136	B	137	A	138	B	139	B	140	A
141	A	142	B	143	A	144	A	145	A	146	D	147	C	148	C	149	D	150	B
151	A	152	C	153	D	154	B	155	B	156	D	157	C	158	D	159	B	160	C
161	D	162	B	163	C	164	A	165	D	166	D	167	A	168	B	169	B	170	A
171	A	172	A	173	C	174	A	175	A	176	B	177	B	178	C	179	D	180	B



Solved these? Continue free.

Published MCQs

138,698+

Exams covered

141+

Subjects covered

56+

Answers explained

100%

Explained MCQs, solved past papers, and free quizzes at testustad.com.

- ✓ Free ETEA MDCAT practice, chapter by chapter, every answer explained
- ✓ Solved ETEA MDCAT past papers and the most important topics
- ✓ Free quizzes, with your score marked instantly
- ✓ No sign-up needed to practise

Continue ETEA MDCAT preparation free

testustad.com/exams/etea-mdcat

Want a day-by-day study plan, timed full-length mocks, and weak-topic analytics? That's in the paid packs.