



Atal Medical & Research University, H.P. (A State Govt. University)

(SLBS Govt. Medical College & Hospital Campus, Ner Chowk, Mandi, H.P.)

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Answer keys for CET (Medical) for B. Sc. Para Medical and B. Pharmacy (Ayurveda) Entrance test

Paper Code-2504

held on 11th June, 2025

Evening Shift (02:00 PM to 04:00 PM)

If a candidate does not satisfy with the key answers, he/she can make representation with documentary proof to the COE, Atal Medical and Research University, HP, at Nerchowk, Distt. Mandi, HP-175008 through email on coemedicaluniv.mandi@gmail.com up to 13.06.2025 by 05:00 PM and thereafter, no representation will be entertained under any circumstances.

-Sd/-

(Dr. Parveen Kumar Sharma)
Controller of Examinations

Atal Medical & Research University, HP,
Ner Chowk, Distt. Mandi.

(To be filled by the candidate)

Booklet S. No. _____

Roll No. (In figures) _____

Roll No. (In words) _____

Name of the Candidate : _____

Father's Name : _____

Center of Examination : _____

Total No. of Questions : 100

Paper Code- 2504

Time Allowed : 2 Hours

Maximum Marks : 100

IMPORTANT NOTE:

- (i) OMR Answer Sheet will be supplied by the Examination Centre Superintendent for answering the questions.
- (ii) Use **Blue/Black Ink/ Ball Pen only**, to darken the appropriate circle in the OMR Answer Sheet.
- (iii) Darken one circle deeply for each question in the OMR Answer Sheet, as faintly darkened circle might be rejected by the Optical Scanner.
- (iv) Darkening of more than one circle shall be rejected by the scanner. **Over-writing, cutting, erasing or use of White Fluid is not allowed.**
- (v) Before dealing with the question paper, fill-up the required information with Blue/Black Ball Pen correctly both in the Question Booklet and in the OMR Answer Sheet.
- (vi) Do not fold the OMR Answer Sheet nor put any mark here and there to avoid rejection by the Optical Scanner.
- (vii) Write Roll. No. carefully on the OMR Answer Sheet and darken the appropriate circle properly.
- (viii) **Each question carries One Mark. There will be No Negative Marking.**
- (ix) **Use of Calculator is not allowed.**
- (x) **No over-writing, cutting, erasing or use of white fluid is allowed.**
- (xi) Rough work be done on the sheet(s) at the end.
- (xii) **MOBILE TELEPHONES (EVEN ON SWITCH-OFF MODE) AND SUCH OTHER ELECTRONIC DEVICES ARE NOT ALLOWED INSIDE THE EXAMINATION HALL.**
- (xiii) The question paper-booklet will be retained by the candidate after the entrance test is over.
- (xiv) Question No 1 - 40 is Biology, 41 – 70 is Chemistry and 71 - 100 is Physics.

Paper Code- 2504

Rough Page

AMRC

Biology

Q1. Identify the correct sequence of Taxonomical categories.

(a) Species → Genus → Order → Phylum

(b) Genus → Species → Order → Kingdom

(c) Species → Genus → Kingdom → Phylum

(d) Genus → Kingdom → Order → Species

Answer (a) Species → Genus → Order → Phylum

Q2. Which one of following is called imperfect fungi.

(a) Basidiomycetes

(b) Ascomycetes

(c) Phycomycetes

(d) Deuteromycetes

Answer (d) Deuteromycetes

Q3. Flowering Plants are

(a) Gymnosperms

(b) Angiosperms

(c) Pteridophytes

(d) Bryophytes

Answer (b) Angiosperms

Q4. Body with pores and canal in walls is characteristics of Phylum

(a) Annelida

(b) Mollusca

(c) Porifera

(d) Platyhelminthes

Answer (c) Porifera

Q5. The pattern of arrangement of leaves on the stem or branch is called.

(a) Inflorescence

(b) Venation

(c) Phyllotaxy

(d) Hypogynous

Answer (c) Phyllotaxy

Q6. Stomata are composed of two bean shaped cells known as

(a) Subsidiary Cells

(b) Guard Cells

(c) Trichomes

(d) Cuticle

Answer (b) Guard Cells

Q7. The concept of “omnis cellula -e cellula” regarding cell Division was first proposed by

- (a) Theodore Schwann
- (b) Aristotle
- (c) Darwin
- (d) Rudolf Virchow

Answer (d) Rudolf Virchow

Q8. Spot the odd one out from the following

- (a) Chloroplasts
- (b) Chromoplasts
- (c) Leucoplasts
- (d) Centrosome

Answer (d) Centrosome

Q9. Nuclear DNA replicated in the.....Phase.

- (a) G₁Phase
- (b) G₂ Phase
- (c) S-Phase
- (d) M Phase

Answer (c) S-Phase

Q10. PEP (Phosphoenol pyruvate) is primary Co₂ acceptor in

- (a) C₃ Plants
- (b) C₄ Plants
- (c) C₂ Plants
- (d) Both C₃ and C₄ Plants

Answer (b) C₄ Plants

Q11. When carbohydrates are used as substrate and completely oxidized, the RQ value will be :-

- (a) 1
- (b) 0.7
- (c) more than 1
- (d) 2.7

Answer (a) 1

Q12. Which one of the following is called sound box

- (a) Lungs
- (b) Larynx
- (c) Tongue
- (d) Kidney

Answer (b) Larynx

Q13. The difficulty in breathing due to inflammation of bronchi and bronchioles is due to

- (a) Malaria
- (b) Hypertension
- (c) Asthma
- (d) Uremia

Answer (c) Asthma

Q14. In blood group 'A' the antigens on RBC's

- (a) AB
- (b) A
- (c) B
- (d) Nil

Answer (b) A

Q15. Kidney has nearly one million complex tubular structure called

- (a) Villi
- (b) Ligaments
- (c) Nephrons
- (d) Axons

Answer (c) Nephrons

Q16. Which one of following is not present in muscle fibers

- (a) H- zone
- (b) Z- line
- (c) A- band
- (d) K- band

Answer (d) K- band

Q17.controls body temperature, urge for eating and drinking.

- (a) Hypothalamus
- (b) Medulla
- (c) Cerebellum
- (d) All the above

Answer (a) Hypothalamus

Q18. β - cells are present in

- (a) Kidney
- (b) Pancreas
- (c) Ovary
- (d) Heart

Answer (b) Pancreas

Q19. Emergency hormones or hormones of fight or flight secreted by

- (a) Adrenal gland
- (b) Pituitary gland
- (c) hypothalamus
- (d) Thyroid gland

Answer (a) Adrenal gland

Q20. Which one of following is highly effective in fruit ripening

- (a) Oxygen
- (b) Methylene
- (c) Ethylene
- (d) CNG

Answer (c) Ethylene

Q21. Tiger eating the deer is example of

- (a) Predation
- (b) Mutualism
- (c) Amensalism
- (d) Commensalism

Answer (a) Predation

Q22. The succession that take place in wet areas and progress from hydric to mesic condition is called

- (a) Xerarch succession
- (b) Psammosere succession
- (c) Hydrarch succession
- (d) Sere Succession

Answer (c) Hydrarch succession

Q23. Presence of large amount of nutrients in water causes excessive growth of plank tonic algae is called

- (a) BOD
- (b) Biomagnification
- (c) Radioactivity
- (d) Algal bloom

Answer (d) Algal bloom

Q24. "Molecular Scissors" are

- (a) Ligases enzymes
- (b) Restriction enzymes
- (c) Polymerase enzymes
- (d) All the above

Answer (b) Restriction enzymes

Q25. Golden rice is enriched with

- (a) Vitamin E
- (b) Vitamin C
- (c) Vitamin A
- (d) Vitamin B

Answer (c) Vitamin A

Q28. *Homo sapiens* arose in which continent

- (a) Asia
- (b) Ausralia
- (c) Africa
- (d) Europe

Answer (c) Africa

Q26. “Roquefort cheese” is ripened by using

- (a) Bacterium
- (b) Fungus
- (c) Yeast
- (d) Virus

Answer (b) Fungus

Q29. The Technique of DNA fingerprinting was initially developed by

- (a) G.J. Mendel
- (b) Alec Jeffreys
- (c) Morgan
- (d) Alred Hersney

Answer (b) Alec Jeffreys

Q27. Coca alkaloid or cocaine is obtained from

- (a) *Cannabis sativa*
- (b) *Atropa belladona*
- (c) *Papaver somniferum*
- (d) *Erythroxylum coca*

Answer (d) *Erythroxylum coca*

Q30. Frederick Griffith conduct his experiment on

- (a) Bacterium
- (b) Fungus
- (c) Yeast
- (d) All the above

Answer (a) Bacterium

Q31. Colour blind person cannot discriminate between

- (a) Red and yellow colour
- (b) Red and green colour
- (c) Red and blue colour
- (d) Red and white colour

Answer (b) Red and green colour

Q32. Genes which code for a pair of contrasting traits are known as

- (a) Alleles
- (b) progeny
- (c) Linkage
- (d) Capping

Answer (a) Alleles

Q33. The embryo with 8-16 blastomeres is called

- (a) Placenta
- (b) Blastocysts
- (c) morula
- (d) Zona pellucida

Answer (c) morula

Q34. Spot the odd one from the following structures with reference to the Male reproductive system

- (a) Testis
- (b) Epididymis
- (c) Ampulla
- (d) Rete testis

Answer (c) Ampulla

Q35. To produce seeds without fertilization is called

- (a) Apomixis
- (b) Polyembryony
- (c) Dormancy
- (d) Emasculation

Answer (a) Apomixis

Q36. A typical angiosperm embryo sac, at maturity is

- (a) 7- nucleate and 8- celled
- (b) 8- nucleate and 7- celled
- (c) 8- nucleate and 6- celled
- (d) 7- nucleate and 6- celled

Answer (b) 8- nucleate and 7- celled

Q37. Malaria is caused by

- (a) *entamoeba*
- (b) *Virus*
- (c) *Plasmodium*
- (d) *Salmonella*

Answer (c) *Plasmodium*

Q38. Which one is abiotic factor

- (a) Plants
- (b) Animals
- (c) Light
- (d) Birds

Answer (c) Light

Q39. "Ganga Action Plan" was initiated by

- (a) The Ministry of Human Resources and Development
- (b) The Ministry of Environment and forests
- (c) Indian Agricultural Research Institute
- (d) Khadi and Village Industries Commission

Answer (b) The Ministry of Environment and forests

Q40. The number of contrasting characters studied by Mendel in pea were

- (a) Five
- (b) Six
- (c) Seven
- (d) Eight

Answer (c) Seven

Chemistry

Q41. Which metal is used in Ullmann reaction?

- (a) Na
- (b) Mg
- (c) Cu
- (d) Zn

Answer: C

Q42. Fehling A and Fehling B are :

- (a) CuSO_4 soln. + AgNO_3
- (b) CuSO_4 and alkaline solution of Sodium tartarate
- (c) Both a & b
- (d) $\text{CuSO}_4 + \text{CaSO}_4$

Answer : B

Q43. Which of the following is tertiary amine?

- (a) Triethylamine
- (b) N-methyl aniline
- (c) 1-methylcyclohexyl amine
- (d) none of the above

Answer : A

Q44. Aspirin is :

- (a) Acetyl salicylic acid
- (b) Phenyl salicylate
- (c) Acetyl salicylate
- (d) Methyl salicylic acid

Answer : A

Q45. In Clemmensen Reduction, Carbonyl compound is treated with

- (a) Zinc amalgam with HNO_3
- (b) Sodium amalgam + HCl
- (c) Zinc amalgam + HCl
- (d) Sodium amalgam + HNO_3

Answer : C

Q46. Vitamin is soluble in water?

- (a) Vitamin D
- (b) Vitamin K
- (c) Vitamin E
- (d) Vitamin B

Answer : D

Q47. $\text{CF}_2=\text{CF}_2$ is a monomer of which of the following polymer?

- (a) Teflon
- (b) Nylon-6
- (c) Glyptal
- (d) Buna-S

Answer : A

Q48. Pain relieving drugs are called

- (a) Antipyretics
- (b) Analgesics
- (c) Antibiotics
- (d) Antiseptics

Answer : B

Q49. What will be the X in the following reaction: Phenol + Zn dust + heat = X

- (a) Acetic Acid
- (b) Ethanol
- (c) Methanol
- (d) Benzene

Answer : D

Q50. Composition of a compound is C=26%, H=8% and rest is oxygen. Then % of Oxygen will be

- (a) 16%
- (b) 66%
- (c) 100%
- (d) 34%

Answer : B

Q51. Match column X and Y

Column X

- i. Acetic acid
- ii. Sulphuric acid
- iii. Formaldehyde
- iv. Lime stone

Column Y

- a. CaCO_3
- b. CH_3COOH
- c. HCHO
- d. H_2SO_4

- (a) i-a, ii-b, iii-c, iv-d
- (b) i-b, ii-a, iii-d, iv-c

- (c) i-b, ii-d, iii-c, iv-a
- (d) none of the above

Answer : C

Q52. Lindlar's catalyst is :

- (a) Pt in ethanol
- (b) Pd with BaSO_4
- (c) Ni in ethanol
- (d) Na in liq. NH_3

Answer : B

Q53. What is Lucas Reagent

- (a) A mixture of $\text{HCl} + \text{ZnCl}_2$
- (b) A mixture of $\text{HCl} + \text{CaCl}_2$
- (c) A mixture of $\text{HNO}_3 + \text{ZnCl}_2$
- (d) None of the above

Answer : A

Q54. $\text{C}_6\text{H}_5\text{NH}_2 \xrightarrow[\text{HCl}]{\text{NaNO}_2}$?

Identify ?

- (a) benzene diazonium Chloride.
- (b) $\text{C}_6\text{H}_5\text{NH}^{+3}$
- (c) $\text{C}_6\text{H}_5\text{Cl}$
- (d) None of the above.

Answer : A

Q55. Number of Significant figures in 6.626 are

- (a) 3
- (b) 5
- (c) 4
- (d) 2

Answer : C

Q56. Benzoic acid is

- (a) $\text{C}_6\text{H}_5\text{CHO}$
- (b) $\text{C}_6\text{H}_5\text{COOH}$
- (c) CH_3COOH
- (d) CH_3CHO

Answer : B

Q57. The hybridisation of 'S' in SF_6

- (a) sp^3d^2
- (b) sp^2
- (c) sp^3d
- (d) sp^3d^3

Answer : A

Q58. Which concentration term is unitless?

- (a) Molarity
- (b) Molality
- (c) Mole fraction
- (d) Formality

Answer : C

Q59. The Highest magnetic moment by a metal ion with outer Electronic configuration :

- (a) 3d^2
- (b) 3d^7
- (c) 3d^9
- (d) 3d^5

Answer : D

Q60. If 'n' is '2' then values of 'l' quantum no. can be

- (a) 0, 1, 2
- (b) 0, 2
- (c) 0, 1, 3
- (d) 0, 1

Answer : D

Q61. The method used to remove temporary hardness of water is

- (a) Synthetic resins method
- (b) Calgon's method
- (c) Clark's method
- (d) Ion-exchange method

Answer : C

Q62. Which of the following pair is not isoelectronic in nature

- (a) Na^+ , Mg^{+2}
- (b) Na^+ , Al^{3+}
- (c) Mg^{2+} , Al^{3+}
- (d) Na^+ , K^+

Answer : D

Q63. Syn gas is mixture of

- (a) $\text{CO}_2 + \text{H}_2$
- (b) $\text{CO} + \text{H}_2$
- (c) $\text{CO} + \text{CO}_2$
- (d) $\text{CO} + \text{N}_2$

Answer : B

Q64. The main contributor of acid rain is

- (a) Sulphuric acid
- (b) Calcium oxide
- (c) Calcium carbonate
- (d) PAN

Answer : A

Q65. Chlorobenzene when treated with sodium in dry ether gives diphenyl, the reaction is ...

- (a) Fittig reaction
- (b) Wurtz reaction
- (c) Sandmeyer reaction
- (d) Coupling reaction.

Answer : A

Q66. Which metal is present in B_{12} Vitamin?

- (a) Fe
- (b) Co
- (c) Mg
- (d) Pt

Answer : B

Q67. Which of the following orbital is nearest to the nucleus?

- (a) 4f
- (b) 5d
- (c) 4s
- (d) 7p

Answer : C

Q70. Which of the following is not a colligative property?

- (a) Elevation in B.p t
- (b) Depression in freezing point
- (c) Osmotic pressure
- (d) Lowering in vapour pressure

Answer : D

Q68. What is the formula of Borax?

- (a) $\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$
- (b) $\text{Na}_2\text{B}_2\text{O}_7$
- (c) $\text{NaBO}_2 + \text{B}_2\text{O}_3$
- (d) B_2O_3

Answer : A

Physics

Q71. Whenever a wave enters from one medium to another, its

- a) Velocity changes
- b) frequency changes
- c) frequency doesn't change
- d) wavelength remains constant

ANS c

Q69. Among the following ions which one has the highest paramagnetism?

- (a) $[\text{Cr}(\text{H}_2\text{O})_6]^{3+}$
- (b) $[\text{Fe}(\text{H}_2\text{O})_6]^{2+}$
- (c) $[\text{Cu}(\text{H}_2\text{O})_6]^{2+}$
- (d) $[\text{Zn}(\text{H}_2\text{O})_2]^{2+}$

Answer : B

Q72. A particle moves in a circular path with a uniform speed, its motion is

- a) periodic
- b) oscillatory
- c) simple harmonic
- d) angular simple harmonic

Ans (a)

Q73. What is the number of degrees of freedom for an ideal diatomic molecule at ordinary temperature?

- a) 3
- b) 5
- c) 7
- d) 6

Ans (b)

Q74. First law of thermodynamics is the law of conversion of

- a) mass
- b) linear momentum
- c) energy
- d) angular momentum

Ans c

Q75. S.I. unit of energy is

- a) joule
- b) calorie
- c) kilo calorie
- d) none

Ans (a)

Q76. Plants get water through the roots because of

- a) Capillarity
- b) Viscosity
- c) Gravity
- d) elasticity

Ans-a

Q77. Dimensional formula stress is same as that of

- a) force
- b) impulse
- c) pressure
- d) strain

Ans-c

Q78. When you move from equator to pole, the value of mass of the body

- a) increases
- b) decreases
- c) remains the same
- d) increases then decreases

Ans-c

Q79. Torque acting on a body is the rotational analogue

- (a) mass
- b) force
- c) velocity
- d) K.E.

Ans-b

Q82. which of the following quantities is vector

- a) work
- b) K.E.
- c) power
- d) Angular Moment

Ans-d

Q80. A light and heavy body have equal momentum which one has greater Kinetic energy

- a) A light body
- b) heavy body
- c) both have equal K.E.
- d) none

Ans-a

Q83. If a body travels with constant acceleration which of the following quantities remains Constant

- a) Displacement
- b) Velocity
- c) Time
- d) None

Ans-d

Q81. Newton's first law of motion describes the

- a) inertia
- b) energy
- c) work
- d) momentum of inertia

Ans-a

Q84. Electron volt is a unit of

- a) Potential difference
- b) Electric current
- c) electronic charge
- d) Energy

Ans-d

Q85. Which of the following physical quantity is dimensionless?

- a) Angle
- b) specific gravity
- c) Strain
- d) all of these

Ans-d

Q88. Which spectral series of hydrogen lie in UV region?

- a) Paschen
- b) Balmer
- c) Lyman
- d) Brackett

ANS-C

Q86. Majority charge carriers in p-type semiconductor are

- a) Holes
- b) Electrons
- c) Holes and Electrons
- d) None

Ans – a

Q89. The mass of photon at rest is

- a) 1
- b) Infinite
- c) Zero
- d) None

ANS-C

Q87. An atom bomb works on the principle of

- a) Alpha-Decay
- b) Beta decay
- c) nuclear fission
- d) Nuclear fusion

Ans. C

Q90. Mirage is due to which of the following

- a) Diffraction
- b) Reflection
- c) Refraction
- d) Total Internal reflection

ANS-d

Q91. Focal length of the plane mirror is

- a) Negative
- b) positive
- c) Zero
- d) infinite

ANS-d

Q92. Which of the following are not eM waves?

- a) Cosmic rays
- b) r-rays
- c) β -rays
- d) x-rays

Ans-c

Q93. The direction of Induced Emf is given by

- a) Fleming's Law
- b) Ampere's Law
- c) Lenz's Law
- d) Lorentz's Law

Ans-c

Q94. A uniform magnetic field is obtained in a

- a) bar magnet
- b) horse shoe magnet
- c) circular coil carrying current
- d) none

Ans a

Q95. A charged particle enters a magnetic field at an angle 90° with magnetic field. The path of the particle will be

- b) a helix
- c) an ellipse
- c) a circle
- d) a straight line.

Ans c

Q96. The unit of electric power is

- a) Volt
- b) Joule
- c) Watt
- d) kwh

Ans-c

Q97. In which of the following forms is the energy stored in a capacitor

- a) charge
- b) Potential
- c) Capacitance
- d) electric field

Ans-d

Q99. The net charge on a conductor is

- a) Positive
- b) negative
- c) Varying
- d) zero

Ans-d

Q98. Which of the following is the best insulator

- a) Carbon
- b) Paper
- c) Graphite
- d) Ebonite

Ans-d

Q100. The force per unit charge is known as

- a) Electric flux
- b) Electric field
- c) Electric potential
- d) electric current

Ans-b

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ASMR