

Question Booklet No.

Question Booklet Series :

A

AUAT — 2024
2-Year M. Sc. in Physics (P11)
(TEST BASED ON MCQ)

Full Marks : 100

Duration : 2 Hours

Roll No. of the Candidate : _____

Date of Examination : _____

Name of Examination Centre : _____

Signature of the Candidate : _____

Signature of the Invigilator on
Verification

IMPORTANT INSTRUCTIONS

Candidates should read the below instructions carefully and follow them accordingly.

1. The Question Booklet has paper seal pasted on it. Please do **NOT** open the Question Booklet until you are asked to do so by the Invigilator.
2. The candidates must check immediately after breaking the seal that the Question Booklet contains **100 Multiple Choice Questions** in two parts (Part—I and Part—II).
3. Answer of questions of Part—I and Part—II both will have to be given on the **OMR Answer Sheet** provided for this purpose. Fill up the necessary fields that are intended for you by writing and/or shading appropriately. Otherwise the **OMR Answer Sheet cannot** be evaluated and will liable to be rejected. Question numbers progress from **1** to **100** continuously with alternative answers being shown as [A], [B], [C] and [D] for each question. Record your response by completely darkening the corresponding bubble. While responding, you should consider the best alternative answer and shade only one bubble with **black/blue ball point pen only**. For each correct response you will be awarded **1** mark. There will be negative marking for wrong responses. For each wrong response, **-0.25** mark will be awarded. Multiple responses against one **MCQ** will be treated as a wrong response.
4. On leaving the examination hall, candidates must submit the **OMR Answer Sheet**. They are allowed to keep the Question Booklet with them.
5. **OMR Answer Sheet** will be processed by electronic means. Any untoward/irrelevant remarks, folding or putting stray notes on the answer sheet, any damage to the answer sheet will lead to the rejection of the same and the sole liability shall remain with the candidate.
6. Rough Work may be done at the end of the Question Booklet.
7. No candidate will be allowed to leave the examination hall before completion of the examination.
8. Use of any Electronic device like Mobile, Programmable Calculator etc. is strictly prohibited.

DO NOT OPEN THE SEAL UNTIL INSTRUCTED TO DO SO

PART—I

(Core Subject)

1. At the end of communication system, the signal is converted from radio to
[A] sound
[B] mechanical energy
[C] kinetic energy
[D] potential energy
2. A collection of N two-level systems with energies 0 and $E > 0$ is in thermal equilibrium at temperature T . For $T \rightarrow \infty$, the specific heat approaches to
[A] 0
[B] NK_B
[C] $3NK_B/2$
[D] ∞
3. A body weighs 5 N in air and 2 N when immersed in a liquid. The buoyant force is
[A] 7 N
[B] 3 N
[C] 5 N
[D] 2 N
4. A 3 kg block is suspended to a spring and it produces an extension of 0.5 m. Now this block is replaced by another block of mass 4 kg and put into vertical oscillations. The time period of oscillation is
[A] 4.64 s
[B] 3.64 s
[C] 2.64 s
[D] 1.64 s
5. Given that the ground state energy of hydrogen atom is -13.6 eV, the ground state energy of positronium (which is a bound state of electron and positron) is
[A] $+6.8$ eV
[B] -6.8 eV
[C] -13.6 eV
[D] -27.2 eV
6. The electronic configuration of sodium ($Z = 11$) in its first excited state is given by
[A] $1s^2 2s^2 2p^6 3s^1$
[B] $1s^2 2s^2 2p^6 3p^1$
[C] $1s^2 2s^2 2p^5 3s^2$
[D] $1s^2 2s^2 2p^5 3p^2$
7. If the leading anharmonic correction to the energy of n th vibrational level of a diatomic molecule is $-x_e \left(n + \frac{1}{2} \right)^2 \hbar \omega$ with $x_e = 0.001$, the total number of energy levels possible is approximately
[A] 500
[B] 1500
[C] 300
[D] 750

8. An atomic spectral line is observed to split into nine components due to Zeeman shift. If the upper state of the atom is 3D_2 , then the lower state will be
- [A] 3F_2
- [B] 3F_1
- [C] 3P_1
- [D] 3P_2
9. Rest mass energy of an electron is
- [A] 1.02 MeV
- [B] 0.511 keV
- [C] 2.02 MeV
- [D] 0.511 MeV
10. In He-Ne laser, the laser emits from
- [A] $3s \rightarrow 2p$
- [B] $3s \rightarrow 3p$
- [C] $2p \rightarrow 3s$
- [D] $2s \rightarrow 2p$
11. According to the special theory of relativity which one is **not** an absolute quantity?
- [A] Mass
- [B] Height
- [C] Time and mass
- [D] None of the above
12. Phenomenon that cannot be understood with the framework of classical physics is
- [A] atomic spectra
- [B] blackbody radiation, atomic spectra
- [C] inertial frame
- [D] None of the above
13. Earth can be considered as which type of frame?
- [A] Non-inertial frame
- [B] Accelerated frame
- [C] Inertial frame
- [D] Velocity frame
14. In cathode ray oscilloscope, spots are formed on screen having
- [A] anode
- [B] grid
- [C] matrix
- [D] cathode

15. Magnetic field outside a solenoid is

- [A] strong
- [B] zero
- [C] negligible
- [D] infinite

16. In a transistor, emitter current is

- [A] equal to base current
- [B] slightly less than collector
- [C] slightly more than collector
- [D] equal to the collector

17. Consider a Maxwellian distribution of the velocity of the molecules of an ideal gas. Let V_{mp} and V_{rms} denote the most probable and root mean square velocity respectively. The magnitude of the ratio V_{mp}/V_{rms} is

- [A] 1
- [B] $\frac{2}{3}$
- [C] $\sqrt{\frac{2}{3}}$
- [D] $\frac{3}{2}$

18. Iron has a Body-Centered Cubic (BCC) structure with atomic radius $0.123 \text{ \AA}$. Find the lattice constant.

- [A] $4.587 \text{ \AA}$
- [B] 0
- [C] $2.314 \text{ \AA}$
- [D] $0.2840 \text{ \AA}$

19. A Carnot cycle is to be designed to attain efficiency of 0.75 . If temperature of high temperature reservoir is 727°C , then low temperature reservoir will have to be maintained at

- [A] -23°C
- [B] 181°C
- [C] 23°C
- [D] -181°C

20. The nuclear radius of Al_{13}^{27} is approximately is

- [A] 1.05 fm
- [B] 4.50 fm
- [C] 0.350 fm
- [D] 11.2 fm

21. The interplanar spacing of (220) plane of a Face-Centered Cubic (FCC) structure is $1.7458 \text{ \AA}$. Calculate the lattice constant.

[A] $5.125 \text{ \AA}$

[B] 0

[C] $4.983 \text{ \AA}$

[D] $2.458 \text{ \AA}$

22. For space shuttle which flow is best suited?

[A] Laminar flow

[B] Turbulent flow

[C] Free molecular flow

[D] Continuum flow

23. The particles of the medium vibrate in longitudinal waves

[A] do not vibrate at all

[B] perpendicular to the direction of the wave motion

[C] along the direction of wave motion

[D] opposite to the direction of the wave motion

24. Which of the following oscillators is suitable for frequencies in the range of mega hertz?

[A] RC phase shift

[B] Hartley

[C] Wien bridge

[D] Both [A] and [C]

25. In low density oxygen gas at low temperature, only the translational and rotational modes of the molecules are excited. The specific heat per molecule of the gas is

[A] $\frac{1}{2} K_B$

[B] K_B

[C] $\frac{3}{2} K_B$

[D] $\frac{5}{2} K_B$

26. For a base current of $10 \mu\text{A}$, what is the value of collector current in common emitter if $\beta_{dc} = 100$?

[A] 1 mA

[B] $100 \mu\text{A}$

[C] 10 mA

[D] $10 \mu\text{A}$

27. A region of negative differential resistance is observed in the current voltage characteristics of a silicon PN junction if

- [A] the N-region is heavily doped compared to the P-region
- [B] an intrinsic silicon region is inserted between the P-region and the N-region
- [C] both the P-region and the N-region are heavily doped
- [D] the P-region is heavily doped compared to the N-region

28. The intrinsic carrier concentration of a crystal is 5×10^{22} atoms/m³ at room temperature (27 °C). The position of Fermi level is at

- [A] 0.16 eV
- [B] 0.26 eV
- [C] 0.36 eV
- [D] 0.06 eV

29. At series resonance the circuit acts as pure

- [A] inductive
- [B] resistive
- [C] capacitive
- [D] All of the above

30. In adiabatic expansion real gas shows

- [A] heating effect
- [B] cooling effect or heating effect
- [C] cooling effect
- [D] neither cooling effect nor heating effect

31. An electric field in free space is given by

$$\vec{E} = 100 \cos(10^8 t + kx) \hat{y}$$

Find the wavelength of propagating wave.

- [A] 6π
- [B] 2π
- [C] $\frac{1}{3}$
- [D] 10^8

32. Which capacitor-store higher amount of energy?

- [A] Mica capacitor
- [B] Plastic film capacitor
- [C] Air capacitor
- [D] Paper capacitor

33. If electron is accelerated through 25 volts de Broglie wavelength of an electron is

[A] $2.452 \text{ \AA}$

[B] $24.52 \text{ \AA}$

[C] $0.2452 \text{ \AA}$

[D] $0.49 \text{ \AA}$

34. If the coefficient of stimulated emission for a particular transition is $2.1 \times 10^{19} \text{ m}^3 \text{W}^{-1} \text{s}^{-3}$ and the emitted photon is at wavelength $3000 \text{ \AA}$, then the lifetime of the excited state is approximately

[A] 20 ns

[B] 40 ns

[C] 80 ns

[D] 100 ns

35. The binding energy of the hydrogen atom (electron bound to proton) is 13.6 eV . The binding energy of positronium (electron bound to positron) is

[A] $13.6/2 \text{ eV}$

[B] $13.6 \times 2 \text{ eV}$

[C] $13.6/1810 \text{ eV}$

[D] $13.6 \times 1810 \text{ eV}$

36. When iron is heated its colour changes in the order red $\rightarrow$ yellow $\rightarrow$ white. This is a consequence of

[A] Stefan's law

[B] Wien's radiation law

[C] Wien's displacement law

[D] Rayleigh-Jeans law

37. Number of electric lines of force passing through a certain area is known as

[A] electric field

[B] electric flux

[C] electric potential

[D] potential difference

38. The area of the triangle whose vertices are $(4i - 6j + 2k)$, $(2i - 2j + 2k)$ and $(i + j + k)$ is

[A] $\sqrt{6}$ sq. unit

[B] $\sqrt{3}$ sq. unit

[C] $\sqrt{8}$ sq. unit

[D] $\sqrt{2}$ sq. unit

39. If hydrogen atom is bombarded by energetic electrons, it will emit

- [A] K_α X-rays
- [B] Neutrons
- [C] β -rays
- [D] None of the above

40. In a Hall effect experiment on an intrinsic semiconductor, which of the following statements are **correct**?

- [A] Hall voltage is always zero
- [B] Hall voltage is negative if the effective mass of holes is larger than those of electrons
- [C] Hall voltage depends on the mobility of the carriers
- [D] Hall coefficient can be used to estimate the carrier concentration in the semiconductor

41. When a mass m_1 collides with m_2 elastically, the fractional loss of energy in such collisions is given by

[A] $\frac{4 \frac{m_1}{m_2}}{(m_1 + m_2)^2}$

[B] $\frac{4m_1m_2}{(m_1 + m_2)^2}$

[C] $\frac{4m_1m_2}{(m_1 + m_2)}$

[D] $\frac{2m_1m_2}{(m_1 + m_2)^2}$

42. A 100 turn coil has an inductance of 6 mH. If the number of turns is increased by 200%, all other quantities remaining the same, the inductance will be

- [A] 6 mH
- [B] 3 mH
- [C] 24 mH
- [D] 12 mH

43. A small magnet is dropped down a long vertical copper tube in a uniform gravitational field. After a long time, the magnet

- [A] moves with a constant acceleration
- [B] attains a constant velocity
- [C] executes simple harmonic motion
- [D] moves with a constant deceleration

44. Consider a particle of electric charge e and mass m moving under the influence of a constant horizontal electric field E and constant vertical gravitational field described by acceleration due to gravity g . If the particle starts from rest, what will be its trajectory?

- [A] Circular
- [B] Parabolic
- [C] Straight line
- [D] Elliptic

45. Two 100 W, 220 V bulbs are required to be connected across a 400 V supply. The value of resistance to be inserted in the line so that the voltage across the bulbs does not exceed 220 V is approx

[A] 127 Ω

[B] 198 Ω

[C] 62 Ω

[D] 15 Ω

46. A satellite moves around a planet in a circular orbit at a distance R from its centre. The time period of revolution of the satellite is T . If the same satellite is taken to an orbit of radius $4R$ around the same planet, the time period would be

[A] $8T$

[B] $4T$

[C] $T/4$

[D] $T/8$

47. What is the binary equivalent of decimal 61?

[A] 111011

[B] 111101

[C] 111110

[D] 101011

48. 2's complement of 0011 0101 1001 1100 is

[A] 1100 1010 0110 0100

[B] 1100 1010 1100 0100

[C] 1100 1010 0110 1100

[D] 1100 1010 0110 1101

49. The refractive index (n) of the entire environment around a double slit interference setup is changed from $n = 1$ to $n = 2$. Which one of the following statements is correct about the change in the interference pattern?

[A] The fringe pattern disappears

[B] Fringe width of the pattern decreases by a factor 2

[C] Fringe width of the pattern increases by a factor 2

[D] The central bright maximum turns dark, i.e. becomes a minimum

50. The wavelength of red helium-neon laser in air is $6328 \text{ \AA}$. What happens to its frequency in glass that has a refractive index of 1.50?

[A] Increases by a factor of 3

[B] Decreases by a factor of 1.5

[C] Decreases by a factor of 0.5

[D] Remains the same

- 51.** A cube of each side a is placed in a uniform electric field $\vec{E} = E_0 \hat{i}$. The total electric flux through the cube is
- [A] zero
 [B] $2a^2 E_0$
 [C] $4a^2 E_0$
 [D] $6a^2 E_0$
- 52.** Two gases separated by an impermeable but movable partition are allowed to freely exchange energy. At equilibrium, the two sides will have the same
- [A] pressure and temperature
 [B] volume and temperature
 [C] volume and energy
 [D] pressure and volume
- 53.** For a black body radiation in a cavity, photons are created and annihilated freely as a result of emission and absorption by the walls of the cavity. This is because
- [A] the chemical potential of the photons is zero
 [B] photons obey Pauli exclusion principle
 [C] photons are spin-1 particles
 [D] the entropy of the photons is very large
- 54.** A reversible Carnot engine is operated between temperatures T_1 and T_2 ($T_1 > T_2$) with a photon gas as the working substance. The efficiency of the engine is
- [A] $1 - 3T_1/4T_2$
 [B] $1 - T_1/T_2$
 [C] $1 - (T_1/T_2)^{3/4}$
 [D] $1 - (T_1/T_2)^{4/3}$
- 55.** A monatomic ideal gas at 170°C is adiabatically compressed to $1/8$ of its original volume. The temperature after compression is
- [A] 2.1°C
 [B] 17°C
 [C] -200.5°C
 [D] 887°C
- 56.** When unpolarised light is incident on a glass plate at a particular angle, it is observed that the reflected beam is linearly polarized. What is the angle of the refracted beam with respect to the surface normal?
- [A] 0.334
 [B] 0.233
 [C] 56.7
 [D] The light is completely reflected and there is no refracted beam
- 57.** A cyclotron can accelerate deuteron to 16 MeV . If the cyclotron is used to accelerate α particle, what will be their energy? Take the mass of deuteron to be twice the mass of proton and mass of alpha particles to be four times the mass of protons.
- [A] 8 MeV
 [B] 16 MeV
 [C] 32 MeV
 [D] 64 MeV

58. The distance of a star from the Earth is 4.25 light years, as measured from the Earth. A space ship travels from Earth to the star at a constant velocity in 4.25 years, according to the clock on the ship. The speed of the space ship in units of the speed of light is

[A] $1/2$

[B] $1/\sqrt{2}$

[C] $1/3$

[D] $2/3$

59. A spherical air bubble is embedded in a glass slab. It will behave like a/an

[A] diverging lens

[B] converging lens

[C] achromatic lens

[D] cylindrical lens

60. A thin air film of thickness d is formed in a glass medium. For normal incidence, the condition for constructive interference in the reflected beam is (in terms of wavelength λ and integer $m = 0, 1, 2, \dots$)

[A] $2d = \left(m - \frac{1}{2}\right)\lambda$

[B] $2d = m\lambda$

[C] $2d = (m - 1)\lambda$

[D] $2\lambda = \left(m - \frac{1}{2}\right)d$

61. A conducting sphere of radius r has charge Q on its surface. If the charge on the sphere is doubled and its radius is halved, the energy associated with the electric field will

[A] increase four times

[B] increase eight times

[C] remain the same

[D] decrease four times

62. Consider two point charges q and l_q located at the point, $x = a$ and $x = ma$, respectively. Assuming that the sum of the two charges is constant, what is the value of l for which the magnitude of the electrostatic force is maximum?

[A] m

[B] l

[C] l/m

[D] $l + m$

63. When two different solids are brought in contact with each other, which one of the following is **true**?

[A] Their Fermi energies become equal

[B] Their band gaps become equal

[C] Their chemical potentials become equal

[D] Their work functions become equal

64. The Dulong-Petit law fails near room temperature (300 K) for many light elements (such as boron and beryllium) because their Debye temperature is

[A] $\gg 300$ K

[B] ~ 300 K

[C] 0 K

[D] $\ll 300$ K

65. The ground state energy of 5 identical spin $1/2$ particles which are subject to a one-dimensional simple harmonic oscillator potential of frequency ω is

[A] $\frac{15}{2}\hbar\omega$

[B] $\frac{13}{2}\hbar\omega$

[C] $\frac{1}{2}\hbar\omega$

[D] $5\hbar\omega$

66. Which of the following statements is **correct** for a common emitter amplifier circuit?

[A] The output is taken from the emitter

[B] There is 180° phase shift between input and output voltages

[C] There is no phase shift between input and output voltages

[D] Both p - n junctions are forward biased

67. For a diatomic ideal gas near room temperature, what fraction of the heat supplied is available for external work if the gas is expanded at constant pressure?

[A] $\frac{1}{7}$

[B] $\frac{5}{7}$

[C] $\frac{3}{4}$

[D] $\frac{2}{7}$

68. The half-life of a radioactive nuclear source is 9 days. The fraction of nuclei which are left under caved after 3 days is

[A] $\frac{7}{8}$

[B] $\frac{1}{3}$

[C] $\frac{5}{6}$

[D] $\frac{1}{2^{1/3}}$

69. The acceleration experienced by the bob of a simple pendulum is

[A] maximum at the extreme positions

[B] maximum at the lowest (central) positions

[C] maximum at a point between the above two positions

[D] same at all positions

70. A DC voltage of 80 volts is switched on across a circuit containing a resistance of 5Ω in series with an inductance of 20 H. What is the rate of change of current at the instant when the current is 12 A?

[A] 0 A/s

[B] 1 A/s

[C] 5 A/s

[D] 80 A/s

PART—II

(Islamic History and Culture, General English & General Knowledge)

71. Alhamdulillah means

আলহামদুলিল্লাহ এর অর্থ

- [A] Praise be to Allah
- [B] Glory be to Allah
- [C] Allah is almighty
- [D] Allah is the most gracious

72. As per Islam, which of the following is **true** about intoxicants?

ইসলাম অনুসারে মাদকদ্রব্যের ব্যাপারে কোন্ বক্তব্যটি সঠিক?

- [A] Totally allowed
- [B] Marginally allowed
- [C] Marginally forbidden
- [D] Strongly forbidden

73. The *Holy Qur'an* is revealed

‘পবিত্র কুরআন’ অবতীর্ণ হয়েছে

- [A] at a time
- [B] over a period of 12 years
- [C] over a period of 23 years
- [D] over a period of 32 years

74. The saying ‘Cleanliness is half of faith’ is made by

‘পবিত্রতা ঈমানের অর্ধেক’ এই উক্তিটি করেছেন

- [A] Prophet Muhammad
- [B] Hazrat Umar
- [C] Ibn Taymiyya
- [D] Imam Bukhari

75. The prayer at the noon is called

দুপুরের নামাযকে বলা হয়

- [A] Fajr
- [B] Zuhr
- [C] Asar
- [D] Isha

76. Mother of Prophet Muhammad (PBUH) died when he was _____ year(s) old.

পয়গম্বর মুহাম্মদ(সা.) মাতৃহারা হন _____ বছর বয়সে।

- [A] 1
- [B] 3
- [C] 6
- [D] 12

77. Which of the following is a festival of sacrifice?

নিম্নের কোনটি ত্যাগের উৎসব?

- [A] Laylat al-Qadr
- [B] Muharram
- [C] Eid al-Fitr
- [D] Eid al-Adha

78. The first woman martyr in Islam is

ইসলামের প্রথম মহিলা শহীদ হলেন

- [A] Asma
- [B] Nusaybah
- [C] Al-Khansa
- [D] Sumayyah

79. Hijri calendar is enumerated from the time of

কোন্ সময় থেকে হিজরি ক্যালেন্ডার গণনা করা হয়?

- [A] birth of Prophet Muhammad
- [B] migration of Prophet Muhammad to Madinah
- [C] journey of Prophet Muhammad into heaven
- [D] death of Prophet Muhammad

80. Islam acknowledges

ইসলাম স্বীকৃতি দেয়

- [A] only the last Prophet
- [B] only the last four Prophets
- [C] only the last ten Prophets
- [D] all the Prophets

81. On which day Muslims pray Jummah Prayer?

কোন দিনে মুসলমানরা জুমার নামায পড়ে?

- [A] Sunday
- [B] Saturday
- [C] Tuesday
- [D] Friday

82. The term Waqf refers to ____.

ওয়াকফ শব্দটি বোঝায় ____।

- [A] Bill of exchange
- [B] What is due to the State treasury?
- [C] Promissory note
- [D] Charitable foundation or trust

83. The Arabic term Haq means

আরবি শব্দ হক এর অর্থ হলো

- [A] legal rights
- [B] credit proposal
- [C] taking full responsibility
- [D] kind of sale

84. How many gates of Jannah are there?

জান্নাতের দরজা কয়টি?

- [A] Six
- [B] Seven
- [C] Eight
- [D] Nine

85. Name the Angel who was appointed to deliver messages to Prophet Muhammad (SAW) from Allah (SWT)?

আল্লাহর (সুবাহানাহু ওয়া তায়ালা) পক্ষ থেকে নবী মুহাম্মদ(সা.)-এর কাছে বার্তা পৌঁছে দেওয়ার জন্য নিযুক্ত ফেরেশতার নাম কি?

- [A] Jibreel (AS)
- [B] Mikael (AS)
- [C] Israfil (AS)
- [D] Azrael (AS)

86. Which Country is called the 'Land of Prophets'?

কোন দেশকে 'নবীদের দেশ' বলা হয়?

- [A] Saudi Arabia
- [B] Syria
- [C] Palestine
- [D] Iraq

87. Which word is mentioned most times in the *Holy Qur'an*?

'পবিত্র কুরআনে' কোন শব্দটি সবচেয়ে বেশি বার উল্লেখ করা হয়েছে?

- [A] Qul
- [B] Allah
- [C] Rahman
- [D] Āmana

88. What is the name of the fountain which each person of paradise will drink before entering?

জান্নাতে প্রত্যেক ব্যক্তি প্রবেশের পূর্বে যে ঝর্ণার জল পান করবে তার নাম কি?

- [A] Zamzam
- [B] Kawsar
- [C] Tasneem
- [D] None of the above

89. How many times does 'Bismillah' repeat in the *Holy Qur'an*?

'পবিত্র কুরআনে' কতবার 'বিসমিল্লাহ' এসেছে?

- [A] 112
- [B] 113
- [C] 114
- [D] None of the above

90. Which is the longest Surah in the *Holy Qur'an*?

'পবিত্র কুরআনের' দীর্ঘতম সূরা কোনটি?

- [A] Surah Al - Maidha
- [B] Surah An - Nisa
- [C] Surah Al - Imran
- [D] Surah Al - Baqarah

91. The study of various aspects of ageing is called

- [A] Psephology
- [B] Chronology
- [C] Gerontology
- [D] Entomology

92. The fear of being without your mobile phone is called

- [A] Philophobia
- [B] Claustrophobia
- [C] Ophidiophobia
- [D] Nomophobia

93. His courage won him honour. Identify the type of the underlined noun.

- [A] Proper
- [B] Collective
- [C] Abstract
- [D] Common

94. Fill in the blank with the **correct** alternative.

When I met her ____ years after, she looked old and haggard.

- [A] a few
- [B] the few
- [C] few
- [D] some

95. Choose the **correct** alternative from the given sentences :

- [A] Those never fail who dies in great cause
- [B] They never fail who die in a great cause
- [C] They never fails who dies in a great cause
- [D] They never fails who die in a great cause

96. Who is called the first female teacher of India?

ভারতের প্রথম মহিলা শিক্ষক কাকে বলা হয়?

- [A] Sarojini Naidu
- [B] Savitribai Phule
- [C] Rani Lakshmibai
- [D] None of them

97. Mount Etna is a famous volcano located in

মাউন্ট এটনা একটি বিখ্যাত আগ্নেয়গিরি অবস্থিত

- [A] Argentina
- [B] Italy
- [C] Mexico
- [D] Philippines

98. The Battle of Kalinga was fought in the year

কলিঙ্গের যুদ্ধ কবে সংঘটিত হয়েছিল?

- [A] 540 BC
- [B] 320 AC
- [C] 440 BC
- [D] 261 BC

99. In which year the First World War was fought?

প্রথম বিশ্বযুদ্ধ কত সালে সংঘটিত হয়েছিল?

- [A] 1917 – 1920
- [B] 1914 – 1918
- [C] 1912 – 1916
- [D] 1910 – 1914

100. Which country is the largest tea producer in the world?

বিশ্বের বৃহত্তম চা উৎপাদনকারী দেশ কোনটি?

- [A] India
- [B] China
- [C] Bhutan
- [D] Nepal

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK