Roll. No	Question Booklet Number
O.M.R. Serial No.	

7

B.Sc. (PART-II) EXAMINATION, 2021 BIOTECHNOLOGY (OLD COURSE)

[PAPER First (BBT-201)]

(Instrumentation & Analytical Techniques)

Paper ID		
5	0	2

Time: 1:30 Hours

Question Booklet Series

D

Max. Marks: 150

Instructions to the Examinee:

- Do not open this Booklet untill you are told to do so.
- Candidates should fill their roll number, subject and series of question booklet details correctly, otherwise, in case of any discrepancy in the evaluation, it will be the responsibility of the examinee himself.
- 3. There are 100 questions in the booklet. Examinee is required to answer only 75 questions in the OMR Answer Sheet provided. Four alternative answer to each question are given below the question, out of these four only one answer is correct. The answer which you think is correct or most appropriate, completely fill in the circle containing its letter in your answer sheet (O.M.R. Answer Sheet) with black or blue ball point pen.

परीक्षार्थियों के लिए निर्देश :

- जब तक कहा न जाये, इस प्रश्नपुस्तिका को न खोलें।
- 2. परीक्षार्थी अपने अनुक्रमांक, विषय एवं प्रश्नपुरितका की सिरीज का विवरण यथास्थान सही-सही भरें, अन्यथा मूल्यांकन में किसी भी प्रकार की विसंगति की दशा में उसकी जिम्मेदारी स्वयं परीक्षार्थी की होगी।
- 3. प्रश्न-पुस्तिका में 100 प्रश्न हैं। परीक्षार्थी को केवल 75 प्रश्नों का उत्तर दी गई OMR उत्तर-पत्रक में देना है। प्रत्येक प्रश्न के चार वैकल्पिक उत्तर प्रश्न के नीचे दिये गये हैं। इन चारों में से केवल एक ही उत्तर सही है। जिस उत्तर को आप सही या सबसे उचित समझते हैं, अपने उत्तर-पत्रक (O.M.R. Answer Sheet) में उसके अक्षर वाले वृत्त को काले या नीले बॉल प्वाइंट पेन से पूरा भर दें।

(Remaining instructions on last page)

(शेष निर्देश अन्तिम पृष्ठ पर)

ROUGH WORK

- Which of the following is the distance that the solute moves while undergoing one partition?
 - (A) Retention distance
 - (B) Distribution constant
 - (C) Plate height
 - (D) Column packing length
- 2. What happens during the 'elution from the column' phase chromatography?
 - (A) Components with the greatest affinity elute first
 - (B) Components with least affinity elute first
 - (C) Components elute in a random manner
 - (D) Components elute according to their conc. in the mixture
- 3. In liquid scintillation counter, which of the following is used to convert light into electrical signals?
 - (A) Photomultiplier tube
 - (B) Photoemissive tube
 - (C) Photovoltaic cell
 - (D) Photoreflector
- 4. The procedure for mass spectroscopy starts with which of the following processes ?
 - (A) Sample is bombarded by electron beam
 - (B) Ions are separating by passing them into electric and magnetic field
 - (C) Sample is converted into gaseous state
 - (D) lons are detected

- 5. What is the use of density gradient centrifugation?
 - (A) To purify viruses, ribosomes, membranes
 - (B) To remove dirt
 - (C) To remove the particles
 - (D) To remove large particles
- 6. The base peak in mass spectrum is :
 - (A) the lowest mass peak
 - (B) the peak corresponding to the parent ion
 - (C) the highest mass peak
 - (D) the peak set to 100% relative intensity
- 7. Which of the following is not a column-type liquid chromatography?
 - (A) Gel permeation
 - (B) Ion exchange
 - (C) Liquid Solid
 - (D) Paper
- 8. Electron spin resonance is also known as which of the following?
 - (A) Electron paramagnetic resonance
 - (B) Electron diamagnetic resonance
 - (C) Electron paramagnetic reoccurrence
 - (D) Electron diamagnetic reoccurrence
- 9. Which of the following types of liquid chromatography uses immobilized biochemical as stationary phase?
 - (A) Ion-exchange chromatography
 - (B) Exclusion chromatography
 - (C) Affinity chromatography
 - (D) Gel permeation chromatography

10. The k_d values of 4 proteins are given below:

Protein: A = 0, B = 1, C = 1.5, D = 0.5

If the mixture of these protein is loaded on the gel filtration column, which protein will come out last from column?

- (A) Protein A
- (B) Protein B
- (C) Protein C
- (D) Protein D
- 11. Water in biological samples diffract electron rays and create noise in SEM or TEM images. Water is removed by treating the sample with:
 - (A) Air dried in a desiccated environment
 - (B) Overnight with 1% osmium tetraoxide
 - (C) Graded series of ethanol
 - (D) 2 5% Glutaraldehyde
- 12. The most appropriate use of detergents in the process of differential centrifugation of cell is:
 - (A) to separate the cells based on size and density
 - (B) to lyse the cellular organelles
 - (C) to lyse the plasma membrane and extract cellular organelles
 - (D) to keep the contents of the cell contamincant free
- 13. In hydrophobic interaction chromatography:
 - (A) the salt conc. of the equilibration buffer should be above the salting out effect

- (B) Specific interaction between substrate and enzyme occurs
- (C) the hydrophobic patches on the analyte interact with hydrophobic groups on the matrix
- (D) the hydrophobic groups present on matrix interact with charged groups on the target proteins
- 14. In TEM, the electron beam is focused on the specimen with the help of :
 - (A) Column
 - (B) Stage
 - (C) Condenser lens
 - (D) Projection lens
- 15. If the length of a gel-filtration column is reducedby half, the k_d of a particular analyte would :
 - (A) increase by a factor of 2
 - (B) decrease by a factor of 2
 - (C) decrease by a factor of 0.5
 - (D) remain unchanged
- 16. Strong cation exchanger chromatographic column is based on which of the following?
 - (A) Electrostatic attraction between negative sulfonic acid of stationary phase with positive charge on analyte
 - (B) Analyte molecules with sizes bigger than the pore of the beads of the stationary phase will elute earlier
 - (C) Hydrophobic interactions between long aliphatic chains of stationary phase and the analyte
 - (D) A charged battery that gives unique charge to each analyte depending on their molecular weight

17. Chemical shifts are expressed in units of : 21. In mass spectrometry, fragmentation of ions is achieved through: (A) Gauss (A) Ionization (B) mT/m (B) Splitting (C) ppm (C) Solubilization (D) Percent (%) (D) Couplings 18. Spectroscopy measures the change in behaviour of a molecule when it is exposed to 22. Glycerol is added to protein samples before which of the following? they are added to the wells of PAGE. The function of glycerol is to: (A) A centrifugal force (A) Stabilize protein structure (B) Electromagnetic radiation (B) Provide density to the sample (C) An electrical charge (C) hepls in binding SDS to protein (D) Acidic conditions (D) helps to reduce disulfide bonds by 19. If the value of the distribution coefficient 'K' is β - mercaptoethanol one, then what could be inferred about the distribution of solute? ¹H nuclei located near electronegative atoms 23. tend to be relative to ¹H nuclei. (A) Its distribution in stationary phase is greater (A) Shielded (B) Its distribution in mobile phase is greater (B) Deshielded (C) It is equally distributed in stationary and mobile phase (C) Resonanced (D) It is distributed in random manner (D) Split 20. Why standard hydrogen electrode is called as 24 The dipole magnetic moment (μ) is directly primary reference electrode? proportional to nuclear spin (I) connected by a constant called: (A) It has a known output potential (A) Gyromagnetic ratio (γ) (B) It has a constant output potential (B) Planck's constant (h) (C) Its output potential is independent of the composition of the solution (C) Nuclear susceptibility (x) (D) Its output potential is zero volts (D) Chemical shift (λ)

25.	The reflector of a classroom microscope is :	29.	In sandwich ELISA, the capture antibody :
(B) C	(A) Convex lens		(A) recognize the avidin/streptavidin HRP complex
	(B) Concave lens		(B) act as secondary antibody
	(C) Concavo-convex lens		(C) binds to primary antibody
	(D) Plano-concave lens		(D) binds to antigen in sample
26.	The tracking dye used in SDS-PAGE will be :		In a certain study performed by a group of students on an unknown cell type yielded the following fractions A, B, C and D on 4 steps of centrifugation at 600g, 1000g, 100,000g and 3,20,000g. The different organelles present in
	(A) Anionic		
	(B) Cationic		
	(C) Non-ionic		A, B, C and D fraction is :
	(D) Amphipathic		(A) Mitochondria, nucleus, ribosomes, plasma membrane
a w	A protein 'X' has a molecular weight of 80kDa		(B) Plasma membrane, mitochondria,
	and it is a heterodimer. How many bands you will observe on gel, if you resolve the protein on		ribosomes, nucleus
	SDS-PAGE and native-PAGE ?		(C) Nucleus, mitochondria, ribosomes,plasma membrane
	(A) 1, 1		(D) Ribosomes, mitochondria, plasi
	(B) 1, 2		membrane, nucleus
	(C) 2, 1		A research fellow is facing problem of a Crylamide polymerization even when he is allowing polymerization reaction for 30 min. a room temperature. Which of the following component is most likely to be missing from the cocktail?
28.	(D) 2, 2		
	The type of lenses in a compound microscope		
	are:		
	(A) 3		(A) Glycine
	(B) 4		(B) SDS
	(C) 2		(C) Tris-HCI
	(D) 1		(D) TEMED

(6)

KNP/BBT-201(BIOTECH.)-D/300

32. 35. What is Chromophore? Which of the following is not a type of radiation detector? (A) A coloured compound (A) GM counter (B) A group of atoms in compound responsible (B) Proportional counter for the absorption of electromagnetic radiation (C) Semiconductor detector (C) A group of atoms in compound responsible (D) Flame emission detector for electromagnetic radiation 36. Liquid Chromatography can be performed in which of the following ways? (D) A group of atoms in coloured compound (A) Only in columns 33. To improve a chromatographic separation, you must: (B) Only in plane surfaces (A) increase the no. of theoretical plates on (C) Either in column or on plane surface the column (D) Neither in column nor on plane surface (B) increase the height of the theoretical plates 37. Liquid scintillators are used for which of the on the column following materials? (C) increase both the no. and height of the (A) Low energy beta materials theoretical plates on the column (B) High energy beta materials (D) decrease both the no. and height of the (C) Low energy gamma materials theoretical plates on the column (D) High energy gamma materials IR spectroscopy exploits the change in what 34. kind of behaviour in the molecules it is used to 38. Nuclei having either the number of protons or study? neutrons as odd have spin. (A) molecular vibrations (A) Integral Spin (B) Half-integral Spin (B) Nuclear spins (C) Zero Spin (C) Electron spins (D) Positive Spin (D) Electronic transition

(7)

KNP/BBT-201(BIOTECH.)-D/300

[P.T.O.]

39.	Beer's law states that the intensity of light decreases with respect to :	43.	Which of the following is the formula for pH calculation ?
	(A) Concentration		(A) log10 (H ⁺)
	· ,		(B) -log10 (H ⁺)
	(B) Distance		(C) log2 (H ⁺)
	(C) Composition		(D) -log2 (H ⁺)
	(D) Volume	44.	Which of these particles are highly penetrating?
40.	Which of the following is the function of flame		(A) Alpha particles
	or emission system in Atomic Absorption		(B) Beta particles
	Spectroscopy ?		(C) Gamma particles
	(A) To split the beam into 2		(D) X-ray particles
	(B) To break the steady light into a pulsating light	45.	Which of the following formulae gives the expression for half-life of a radioactive isotope
	(C) To filter unwanted components		when ' λ ' is the decay constant ?
	(D) To reduce the sample into atomic state		(A) $0.762/\lambda$
			(B) $0.693/\lambda$
41.	In which type of chromatography the stationary phase is held in a narrow tube and the mobile		(C) $0.973/\lambda$
	phase is forced through it under pressure ?	46.	(D) 0.258/ λ
	(A) Column chromatography		Mass spectrometers are used to determine which of the following ?
	(B) Planar chromatography		(A) Composition in sample
	(C) Liquid chromatography		(B) Concentration of elements in sample
	(D) Gas chromatography		(C) Relative mass of atoms
42.	The time taken by the analyte after sample		(D) Properties of sample
· <u>-</u> ·	injection to reach the detector is called :	47.	The reduction in counting efficiency of the scintillation detector is called as
	(A) Dead time		(A) Disintegration
	(B) Solute migrate rate		(B) Decay
	(C) Adjusted retention time		(C) Quenching
	(D) Retention time		(D) Reduction

48.	phase is composed of and the mobile	53.	Mass spectrometer separates ions on the basis of which of the following ?
	phase is made of		(A) Mass
	(A) solid, liquid		(B) Charge
	(B) liquid, liquid		(C) Mol. wt.
	(C) liquid, gas		(D) Mass to charge ratio
	(D) solid, gas	54.	For the separation of DNA by electrophoresis,
49.	Which of the following is the commonly used support material for the packed column in gas		which of the following method is commonly used?
	chromatography ?		(A) Agarose - vertical
	(A) Glass		(B) Agarose - horizontal
	(B) Metal		(C) PAGE - vertical
	(C) Diatomaceous earth		(D) PAGE - horizontal
50.	(D) Stainless steel	55.	The term microscope was coined by :
	Which of the following is the relation between hydrogen and hydroxyl ion conc. of pure water?		(A) Janssen and Janssen
	(A) Value of H ion conc. is greater		(B) Faber
	(B) Value of OH ion conc. is greater		(C) Robert Hook
	(C) They both are always the same		(D) Leewenhock
	(D) The conc. keep changing	56.	The fluid exiting a chromatographic column is
51.	In hydrogen electrode, the electrode is placed in a solution of M HCl. Fill in the blank.		called the : (A) eluent
	(A) 0.5		(B) eluate
	(B) 1		(C) analyte
	(C) 2	57.	(D) elution
	(D) 3		Which of the following technique is used to study
52.	NMR is the study of absorption of by nuclei in a magnetic field.		the 3-dimensional structure of a molecule ?
	(A) Radioactive radiation		(A) IR spectroscopy
	(B) IR radiation		(B) Mass spectrometry
	(C) Radio frequency radiation		(C) UV - visible spectroscopy
	(D) Microwaves		(D) X-ray crystallography

(9)

KNP/BBT-201(BIOTECH.)-D/300

[P.T.O.]

58.	Which of the following is not a type of spectroscopy?	63.	Mass spectrometer separates ions on the basis of which of the following ?
	(A) Gamma ray		(A) Mass
	(B) X-ray		(B) Charge
	(C) NMR		(C) Molecular weight
	(D) Sound		(D) Mass to charge ratio
59.	Chromatography is a physical method that is used to separate and analyse	64.	Electrophoresis is not used for the separation
	(A) Simple mixtures		of
	(B) Complex mixtures		(A) Nucleic acids
	(C) Viscous mixtures		(B) Proteins
	(D) Metals		(C) Amino acids
60.	Which of the following types of chromatography		(D) Lipids
	involves the separation of substances in a mixture over a 0.2 mm thick layer of an	65.	Father of microscopy and microbiology is :
	adsorbent ?		(A) Theophrastus
	(A) Gas-Liquid		(B) Janssen
	(B) Column		(C) Leeuwenhoek
	(C) Thin Layer		(D) Hooker
	(D) Paper	00	` '
61.	Which of the following is the value of hydrogen ion concentration of pure water?	66.	The pH at which a protein carries a net zero charge is termed which of the following?
	(A) 1×10 ⁷ moles/liter		(A) pK _a
	(B) 1×10 ⁵ moles/liter		(B) pK _b
	(C) 1×10 ⁶ moles/liter		(C) pI
	(D) 1×10 ⁸ moles/liter		(D) K
62.	In X-ray spectrometers the specimen or the	67.	Which is the first stage of the 2-D-PAGE?
	sample is placed after which of the following components ?		(A) SDS - PAGE
	(A) X-ray tube		(B) HPLC
	(B) Monochromator		` '
	(C) Collimator		(C) IEF
	(D) Detector		(D) Sedimentation

- 68. 'When nuclear radiations pass through, gas ionization is produced'? This is the principle of which of the following detectors?
 - (A) Proportional counter
 - (B) Flow counter
 - (C) G.M. counter
 - (D) Scintillation counter
- 69. What is the unit of absorbance which can be derived from Beer-Lambert's is law?
 - (A) $L \text{ mol}^{-1} \text{ cm}^{-1}$
 - (B) L gm⁻¹ cm⁻¹
 - (C) cm
 - (D) No unit
- 70. Which of the following cannot be used as adsorbent in column adsorption chromatography?
 - (A) Magnesium oxide
 - (B) Silica gel
 - (C) Activated alumina
 - (D) Potassium permanganate
- 71. Which of the following is the relation between conc. of H and OH ion in an acidic solution?
 - (A) Value of H ion conc. is greater
 - (B) Value of OH ion conc. is greater
 - (C) They are equal
 - (D) The conc. keeps changing

- 72. Which of the following acts as ionizing gas in GM counter?
 - (A) Alcohol
 - (B) Argon gas
 - (C) Krypton
 - (D) Hydrogen
- 73. In mass spectrometer, the sample that has to be analyzed is bombarded with which of the following ?
 - (A) Protons
 - (B) Electrons
 - (C) Neutrons
 - (D) Alpha particles
- 74. The ratio of velocity (V) of biomolecule in a medium under constant electric field (E) is called electrophoretic mobility (h). (h) is mathematically expressed as:
 - (A) $\mu = E / V$
 - (B) $\mu = V / E$
 - (C) $\mu = 1 / EV$
 - (D) $\mu = VE$
- 75. The particle sedimentation velocity increases with:
 - (A) increasing viscosity
 - (B) decreasing difference in density between the 2 phases
 - (C) increasing diameter
 - (D) all of the above

76. Which of the following is not true about HPLC? 80. Which one of the following is necessary for mass spectrometry to occur? (A) It requires high pressure for the separation (A) Loss of an electron (B) there is no need to vaporize the sample (B) Change of alignment of a proton in a (C) It is performed in columns magnetic field (D) It has high sensitivity (C) A molecular vibration 77. Which of the following statement is not true about (D) Excitation of an electron from the ground mass spectrometry? state to a higher energy state (A) Impurities of masses different from the one 81. In native-PAGE the separation of protein is being analysed interferes with the result influenced by: (B) It has great sensitivity (A) Charge of protein (B) Size of protein (C) It is suitable for data storage (C) PI of protein (D) It is suitable for library retrieval (D) Both (A) and (B) 78. ESR sensitivity increases with temperature and with magentic field strength. 82. IR spectroscopy provides valuable information about: (A) increasing, increasing (A) Molecular Weight (B) increasing, decreasing (B) Melting point (C) decreasing, increasing (C) Conjugation (D) decreasing, decreasing (D) Functional groups 79. In a chromatographic separation, which of the 83. The main advantage of discontinuous buffer following is most appropriate for the qualitative system in SDS and native-PAGE is: indentification of a substance? (A) Conformation of protein is conserved (A) Relative retention factor (B) Constantly maintain the charge of proteins (B) Retention factor (C) Assist in migration of proteins (C) Retention time (D) Enhance resolution of separation (D) Resolution

84. Which of the following is the operating 88. In SDS-PAGE, migration of protein is effected frequency of the ESR spectrophotometer? by: (A) Charge of protein (A) 1.7 to 3.4 GHz (B) Size of protein (B) 1.5 to 4.2 GHz (C) Net charge of protein (C) 3.2 to 5.4 GHz (D) All of the above 89. Signal splitting in NMR arises from: (D) 8.8 to 9.6 GHz (A) Shielding effect 85. In SDS-PAGE of protein separation, one SDS (B) Spin-Spin decoupling molecule will bind to: (C) Spin-Spin coupling every amino acid (D) Deshielding effect (B) every two amino acids 90. The basis of the technique of chromatography for separating components of a mixture is the : (C) every three amino acids (A) differing movement of particle of different (D) every four amino acids mass in an electric field (B) interaction of components with a stationary What is the principle of centrifugation? 86. and a mobile phase (A) Size reduction principle (C) the absorption of infrared radiation by the components (B) Filtration principle (D) the deflection of charged particles in a (C) Evaporation principle magnetic field 91. Which of the following is not a limitation of Beer-(D) Sedimentation principle Lambert's law, which gives the relation between 87. Which of the following is an example of bulk absorption, thickness and conc. ? property or general detector in HPLC? (A) Conc. must be lower (A) Fluorescence detector (B) Radiation must have higher bandwidth (C) Radiation source must be monochromatic (B) Refractive Index detector (D) Does not consider factors other than (C) Electrochemical detector thickness and conc. that affects absorbance (D) UV-visible detector

(13)

KNP/BBT-201(BIOTECH.)-D/300

[P.T.O.]

- 92. Electron spin resonance involves detecting of a physical phenomenon of of electromagnetic radiation.
 - (A) adsorption
 - (B) absorption
 - (C) radiation
 - (D) reflection
- 93. Function of β -mercaptoethanol in SDS-PAGE is :
 - (A) to give negative charges to amino acids in the proteins
 - (B) for the oxidation of disulfide bonds in the proteins
 - (C) for the reduction of disulfide bonds in the proteins
 - (D) for breaking H bonds in the proteins
- 94. Centrifugation is based on :
 - (A) Patrick's law
 - (B) McLaren's law
 - (C) Stoke's law
 - (D) Stain's law
- 95. Which of the following is used as a carrier gas in Gas chromatography?
 - (A) Carbon dioxide
 - (B) Oxygen
 - (C) Helium
 - (D) Methane
- 96. Column efficiency is measured in terms of number of theoretical plates, which is :
 - (A) Inversely related to height equivalent to theoretical plates
 - (B) Directly related to the peak width
 - (C) Directly related to height equivalent to theoretical plates
 - (D) Inversely related to the peak width

- 97. Which of the following techniques would be most useful to identify and quantify the presence of a known impurity in a drug substance?
 - (A) NMR
 - (B) MS
 - (C) IR
 - (D) HPLC
- 98. The pore size of polyacrylamide gels can be modified according to the protein sizes to be analyzed, how?
 - (A) By adjusting the pH of the employed buffer
 - (B) By using a marker ladder containing higher mol. wt.
 - (C) By adjusting the ratio of acrylamide to bisacrylamide
 - (D) By adjusting the temp. during gel preparation
- 99. What is shielding in NMR?
 - (A) Using a curved piece of metal to block an opponent's attack
 - (B) Putting metal around an R_f source
 - (C) When the magnetic moment of an atom blocks the full induced magnetic field from surrounding nuclei
 - (D) Blocking parts of a molecule from $R_{\mathbf{f}}$
- 100. In chromatogram, the area under the peak can be used to determine which of the following?
 - (A) Component of sample
 - (B) Amount of component in sample
 - (C) Column efficiency
 - (D) Column resolution

ROUGH WORK

Example:

Question:

Q.1 (A) (C) (D)

Q.2 **A B O**

Q.3 **A** • **C D**

If more than 75 questions are attempted by candidate, then the first attempted 75 questions will be considered for evaluation.

- 4. Each question carries equal marks.

 Marks will be awarded according to the number of correct answers you have.
- All answers are to be given on OMR Answer Sheet only. Answers given anywhere other than the place specified in the answer sheet will not be considered valid.
- 6. Before writing anything on the OMR Answer Sheet, all the instructions given in it should be read carefully.
- 7. After the completion of the examination, candidates should leave the examination hall only after providing their question booklet and OMR Answer Sheet separately to the invigilator.
- 8. There will be no negative marking.
- 9. Rough work, if any, should be done on the blank pages provided for the purpose in the booklet.
- To bring and use of log-book, calculator, pager & cellular phone in examination hall is prohibited.
- 11. In case of any difference found in English and Hindi version of the question, the English version of the question will be held authentic.

Impt. On opening the question booklet, first check that all the pages of the question booklet are printed properly. If there is any discrepancy in the question Booklet, then after showing it to the invigilator, get another question Booklet of the same series.

उदाहरण :

प्रश्न :

प्रश्न 1 **(A) (D) (D)**

प्रश्न 2 **(A) (B) (D)**

प्रश्न 3 **A ● C D**

यदि परीक्षार्थी द्वारा 75 से अधिक प्रश्नों को हल किया जाता है तो प्रारम्भिक हल किये हुए 75 उत्तरों को ही मूल्यांकन हेतु सम्मिलित किया जाएगा।

- प्रत्येक प्रश्न के अंक समान हैं। आपके जितने उत्तर सही होंगे, उन्हीं के अनुसार अंक प्रदान किये जायेंगे।
- 5. सभी उत्तर केवल ओ०एम०आर० उत्तर-पत्रक (OMR Answer Sheet) पर ही दिये जाने हैं। उत्तर-पत्रक में निर्धारित स्थान के अलावा अन्यत्र कहीं पर दिया गया उत्तर मान्य नहीं होगा।
- 6. ओ॰एम॰आर॰ उत्तर-पत्रक (OMR Answer Sheet) पर कुछ भी लिखने से पूर्व उसमें दिये गये सभी अनुदेशों को सावधानीपूर्वक पढ़ लिया जाये।
- 7. परीक्षा समाप्ति के उपरान्त परीक्षार्थी कक्ष निरीक्षक को अपनी प्रश्नपुस्तिका बुकलेट एवं ओ०एम०आर० शीट पृथक-पृथक उपलब्ध कराने के बाद ही परीक्षा कक्ष से प्रस्थान करें।
- 8. निगेटिव मार्किंग नहीं है।
- 9. कोई भी रफ कार्य, प्रश्न-पुस्तिका में, रफ-कार्य के लिए दिए खाली पेज पर ही किया जाना चाहिए।
- 10. परीक्षा-कक्ष में लॉग-बुक, कैल्कुलेटर, पेजर तथा सेल्युलर फोन ले जाना तथा उसका उपयोग करना वर्जित है।
- 11. प्रश्न के हिन्दी एवं अंग्रेजी रूपान्तरण में भिन्नता होने की दशा में प्रश्न का अंग्रेजी रूपान्तरण ही मान्य होगा।

महत्वपूर्णः प्रश्नपुस्तिका खोलने पर प्रथमतः जाँच कर देख लें कि प्रश्नपुस्तिका के सभी पृष्ठ भलीभाँति छपे हुए हैं। यदि प्रश्नपुस्तिका में कोई कमी हो, तो कक्षनिरीक्षक को दिखाकर उसी सिरीज की दूसरी प्रश्नपुस्तिका प्राप्त कर लें।