Roll No. .....

Question Booklet Number

O. M. R. Serial No. | | | | | | | | |

B. Sc. (Biotechnology) (Fourth Semester)

EXAMINATION, 2022-23

BIOANALYTICAL TOOLS

Paper Code						
B	B	T	4	0	0	1

Questions Booklet Series
A

Time : 1:30 Hours] [*Maximum Marks : 75*

Instructions to the Examinee :

1. Do not open the booklet unless you are asked to do so.
2. The booklet contains 100 questions. Examinee is required to answer 75 questions in the OMR Answer-Sheet provided and not in the question booklet. All questions carry equal marks.
3. Examine the Booklet and the OMR Answer-Sheet very carefully before you proceed. Faulty question booklet due to missing or duplicate pages/questions or having any other discrepancy should be got immediately replaced.

परीक्षार्थियों के लिए निर्देश :

1. प्रश्न-पुस्तिका को तब तक न खोलें जब तक आपसे कहा न जाए।
2. प्रश्न-पुस्तिका में 100 प्रश्न हैं। परीक्षार्थी को 75 प्रश्नों को केवल दी गई OMR आन्सर-शीट पर ही हल करना है, प्रश्न-पुस्तिका पर नहीं। सभी प्रश्नों के अंक समान हैं।
3. प्रश्नों के उत्तर अंकित करने से पूर्व प्रश्न-पुस्तिका तथा OMR आन्सर-शीट को सावधानीपूर्वक देख लें। दोषपूर्ण प्रश्न-पुस्तिका जिसमें कुछ भाग छपने से छूट गए हों या प्रश्न एक से अधिक बार छप गए हों या उसमें किसी अन्य प्रकार की कमी हो, तो उसे तुरन्त बदल लें।

(Remaining instructions on the last page) (शेष निर्देश अन्तिम पृष्ठ पर)

(Only for Rough Work)

1. Which part of the compound microscope helps in gathering and focusing light rays on the specimen to be viewed ?

(A) Eyepiece lens

(B) Objective lens

(C) Condenser lens

(D) Magnifying lens

2. The greatest resolution in light microscopy can be obtained with _____.

(A) longest wavelength of visible light used

(B) an objective with minimum numerical aperture

(C) shortest wavelength of visible light used

(D) shortest wavelength of visible light used and an objective with the maximum numerical aperture

3. Oil immersion objective lens has an NA value of _____.

(A) 0.65

(B) 0.85

(C) 1.33

(D) 1.00

4. Total Magnification is obtained by _____.

(A) Magnifying power of the objective lens

(B) Magnifying power of eyepiece

(C) Magnifying power of condenser lens

(D) Magnifying power of both the objective lens and eyepiece

5. In Phase contrast microscopy, the rate at which light enters through objects is _____.

(A) Constant

(B) Inversely proportional to their refractive indices

(C) Directly proportional to their refractive indices

(D) Exponentially related to their refractive indices

6. Which part of the light microscope controls the intensity of light entering the viewing area ?

(A) Coarse adjustment screw

(B) Fine adjustment screw

(C) Diaphragm

(D) Condenser lens

7. Of the following, _____ have maximum frequency.

(A) UV Rays

(B) Gamma Rays

(C) Microwaves

(D) Radio Waves

8. In the Visible spectrum the _____ colour has the maximum wavelength.

(A) Violet

(B) Blue

(C) Red

(D) Yellow

9. What is the absorbance of an IR peak with a 25% transmittance ? (log 25 = 1.4)

(A) 2.50

(B) 0.81

(C) 0.60

(D) 0.33

10. What will be the pH of 0.001M NaOH solution ?

(A) 3

(B) 11

(C) 12

(D) 13

11. In which of the following ways, absorption is related to transmittance ?

(A) Absorption is the logarithm of transmittance

(B) Absorption is the reciprocal of transmittance

(C) Absorption is the negative logarithm of transmittance

(D) Absorption is a multiple of transmittance

12. Beer's law states that the intensity of light decreases with respect to _____.

(A) Concentration

(B) Distance

(C) Composition

(D) Volume

13. Lambert's law states that the intensity of light decreases with respect to _____.

(A) Concentration

(B) Distance

(C) Composition

(D) Volume

14. What is the unit of absorbance which can be derived from Beer-Lambert's law ?

(A) $M^{-1}\ cm^{-1}$

(B) $L\ gm^{-1}\ cm^{-1}$

(C) Cm

(D) No unit

15. What is the unit of molar absorptivity or absorptivity which is used to determine absorbance A in Beer-Lambert's formula ?

(A) $M^{-1}\ cm^{-1}$

(B) $L\ gm^{-1}\ cm^{-1}$

(C) Cm

(D) No unit

16. Arrange the various transition in increasing energy :

(A) Electronic < Vibrational < Rotational

(B) Rotational < Vibrational < Electronic

(C) Vibrational < Rotational < Electronic

(D) Rotational < Electronic < Vibrational

17. Which of the electronic transition have highest energy ?

(A) $\sigma \rightarrow \sigma^*$ Transitions

(B) $n \rightarrow \sigma^*$ Transitions

(C) $n \rightarrow \pi^*$ Transitions

(D) $\pi \rightarrow \pi^*$ Transitions

18. What is the alternative name for red shift ?

(A) Hypsochromic effect

(B) Bathochromic effect

(C) Hyperchromicity

(D) Hypochromicity

19. What are the factors which affect the UV-Vis spectroscopy ?

(A) Protonation/deprotonation

(B) Solvent polarity

(C) Orientation effect

(D) All of the above

20. The difference between the excitation and emission wavelength in fluorescence is called :

(A) Intersystem crossing

(B) Phosphorescence

(C) Internal conversion

(D) Stokes shift

21. What is the principle of centrifugation ?

(A) Sedimentation principle

(B) Filtration principle

(C) Evaporation principle

(D) Size reduction principle

22. What is called centrifugation ?

(A) Separated through spinning

(B) Separate components at higher temperature

(C) Separate components at lower temperature

(D) Separated through evaporation

23. What is use of density gradient centrifugation ?

(A) To purify viruses, ribosomes, membranes

(B) To remove dirt

(C) To remove fine particles

(D) To remove large particles

24. What is another name for zonal centrifugation ?

(A) Isopynic centrifugation

(B) Gradient centrifugation

(C) Both (A) and (B)

(D) None of the above

25. Which centrifugation depends on buoyant densities ?

(A) Isopynic centrifugation

(B) Gradient centrifugation

(C) Both (A) and (B)

(D) None of the above

26. What are applications of centrifugation ?

(A) To separate two miscible substances and analyze the hydrodynamic properties of macromolecules

(B) To separate two miscible substances and water treatment

(C) Purification of mammalian cells and water treatment

(D) Analyse the hydrodynamic properties of macromolecules and water treatment

27. Which of the following statements about centrifugation are True/False ?

Statement 1 : Particles are separated from a solution according to their size.

Statement 2 : Particles are not separated from a solution according to their shape.

(A) True, False

(B) True, True

(C) False, True

(D) False, False

28. Which of the following is used in electron microscope ?

(A) Electron beams

(B) Magnetic fields

(C) Both (A) and (B)

(D) None of the above

29. Electron Microscope can give a magnification upto _____.

(A) 400,000 ×

(B) 100,000 ×

(C) 15000 ×

(D) 100 ×

30. Which of the followings are true for electron microscopy ?

(A) Specimen should be thin and dry

(B) Image is obtained on a phosphorescent screen

(C) Electron beam must pass through evacuated chamber

(D) All of the above

31. Negative Staining is used for examining _____.

(A) virus particles

(B) protein molecules

(C) bacterial flagella

(D) All of the above

32. Which among the following helps us in getting a three-dimensional picture of the specimen ?

(A) Transmission Electron Microscope

(B) Scanning Electron Microscope

(C) Compound Microscope

(D) Simple Microscope

33. On what factors does the intensity of secondary electrons depend upon ?

(A) Shape of the irradiated object

(B) Chemical composition of the irradiated object

(C) Number of electrons ejected

(D) All of the above

34. Which of the following techniques are used in Transmission Electron Microscopy (TEM) for examining cellular structure ?

(A) Negative-Staining

(B) Shadow Casting

(C) Ultrathin Sectioning

(D) All of the above

35. Which of the following microscopes is best suited for observing live specimen without staining ?

(A) Compound microscope

(B) Phase contrast microscope

(C) SEM

(D) TEM

36. What will be the magnification of microscope with 10 × eyepiece and 40 × objective ?

(A) 40 ×

(B) 400 ×

(C) 4000 ×

(D) 40000 ×

37. Which of the following microscope have maximum magnification and resolution ?

(A) Light microscope

(B) Phase contrast microscope

(C) Fluorescence microscope

(D) Electron microscope

38. What is the wavelength range for UV spectrum of light ?

(A) 400 nm – 700 nm

(B) 700 nm to 1 mm

(C) 0.01 nm to 10 nm

(D) 10 nm to 400 nm

39. The representation of Beer-Lambert's law is given as A = abc. If 'b' represents distance, 'c' represents concentration and 'A' represents absorption, what does 'a' represent ?

(A) Intensity

(B) Transmittance

(C) Absorptivity

(D) Admittance

40. Electronic transitions from a high state of electronic state to low energy happen in _____ ?

(A) Internal Conversion

(B) Intersystem Crossing

(C) External Conversion

(D) All mentioned above

41. What happens if the levels of vibration get overlap with triplet and singlet states of excitation ?

(A) Internal Conversion

(B) Intersystem Crossing

(C) External Conversion

(D) All mentioned above

42. What does a fluorometer consist of ?

(A) Excitation Monochromator

(B) Emission Monochromator

(C) Both (A) and (B)

(D) None of the above

43. Which of the following is the wave number of near infrared spectrometer ?

(A) $4000 - 200\ cm^{-1}$

(B) $200 - 10\ cm^{-1}$

(C) $12500 - 4000\ cm^{-1}$

(D) $50 - 1000\ cm^{-1}$

44. Which of the following centrifugation is used to separate certain organelles from whole cell ?

(A) Rate-zonal centrifugation

(B) Normal centrifugation

(C) Differential centrifugation

(D) Isopycnic centrifugation

45. What is the applied centrifugal field at a point equivalent to 5 cm from the centre of rotation and an angular velocity of 3000 rad s^{-1} ?

(A) $4.5 \times 10^7\ cm\ s^{-2}$

(B) $5.4 \times 10^7\ cm\ s^{-2}$

(C) $3.4 \times 10^7\ cm\ s^{-2}$

(D) $6.5 \times 10^7\ cm\ s^{-2}$

46. Which of the following is the purpose of the beam splitter in double beam photometer or colorimeter ?

(A) Splits beam into two equal intensity beams

(B) Splits beam in such a way that sample beam has higher intensity

(C) Splits beam in such a way that a reference beam has higher intensity

(D) Merge two equal intensity beams into single beam

47. Which of the following is a source used in spectroscopy ?

(A) LASER

(B) Tube light

(C) Sodium vapour lamp

(D) Tungsten lamp

48. pH meter probe is dipped in _____.

(A) 3M NaCl solution

(B) 3M KCl solution

(C) 3M NaOH solution

(D) 3M HCl solution

49. What is the pH of 1N HCl solution ?

(A) 0

(B) 1

(C) 2

(D) 3

50. What is the pH of 1N NaOH solution ?

(A) 11

(B) 12

(C) 13

(D) 14

51. Chromatography is a physical method that is used to separate and analyse _____.

(A) Simple mixtures

(B) Complex mixtures

(C) Viscous mixtures

(D) Metals

52. In which type of chromatography, the stationary phase held in a narrow tube and the mobile phase is forced through it under pressure ?

(A) Column chromatography

(B) Planar chromatography

(C) Liquid chromatography

(D) Gas chromatography

53. In chromatography, the stationary phase can be _____ supported on a solid.

(A) Solid or liquid

(B) Liquid or gas

(C) Solid only

(D) Liquid only

54. In chromatography, which of the following can the mobile phase be made of ?

(A) Solid or liquid

(B) Liquid or gas

(C) Gas only

(D) Liquid only

55. Which of the following cannot be used as an adsorbent in Column adsorption chromatography ?

(A) Magnesium oxide

(B) Silica gel

(C) Activated alumina

(D) Potassium permanganate

56. Which of the following types of chromatography involves the separation of substances in a mixture over a 0.2 mm thick layer of an adsorbent ?

(A) Gas liquid

(B) Column

(C) Thin layer

(D) Paper

57. In Column chromatography, the stationary phase is made of and the mobile phase is made of _____.

(A) Solid, liquid

(B) Liquid, liquid

(C) Liquid, gas

(D) Solid, gas

58. In Thin layer chromatography, the stationary phase is made of _____ and the mobile phase is made of _____.

(A) Solid, liquid

(B) Liquid, liquid

(C) Liquid, gas

(D) Solid, gas

59. In which of the following type of paper chromatography does the mobile phase move horizontally over a circular sheet of paper ?

(A) Ascending paper chromatography

(B) Descending paper chromatography

(C) Radial paper chromatography

(D) Ascending - descending chromatography

60. Liquid chromatography can be performed in which of the following ways ?

(A) Only in columns

(B) Only on plane surfaces

(C) Both (A) and (B)

(D) None of the above

61. Gas chromatography can be performed in which of the following ways ?

(A) Only in columns

(B) Only on plane surfaces

(C) Either in columns or on plane surfaces

(D) Neither in columns nor on plane surfaces

62. In Gas-liquid phase chromatography, the stationary phase is composed of _____ and the mobile phase is made of _____.

(A) Solid, liquid

(B) Liquid, liquid

(C) Liquid, gas

(D) Solid, gas

63. Which of the following types of chromatography involves the process, where the mobile phase moves through the stationary phase by the influence of gravity or capillary action ?

(A) Column Chromatography

(B) High Pressure Liquid Chromatography

(C) Gas Chromatography

(D) Paper Chromatography

64. Which of the following is not true about High Pressure Liquid Chromatography (HPLC) ?

(A) It requires high pressure for the separation of the specious

(B) There is no need to vaporise the samples

(C) It is performed in columns

(D) It has high sensitivity

65. For the separation of which of the following substances, Gas-solid chromatography is being used ?

(A) Thermally stable organic solids

(B) Volatile organic components

(C) Thermally stable liquids

(D) Low molecular weight gaseous species

66. Gas-solid chromatography is based on which of the following processes ?

(A) Partition of the analyte between a gaseous mobile phase and a stationary liquid phase

(B) Adsorption of gaseous substances on solid surface

(C) lon exchange

(D) Large molecules cannot penetrate through the gel

67. Which technique separates charged particles using electric field ?

(A) Hydrolysis

(B) Electrophoresis

(C) Protein synthesis

(D) Protein denaturing

68. Electrophoresis was developed by :

(A) Tswett

(B) Tsvedberg

(C) Tiselius

(D) Sanger

69. The speed of migration of ions in electric field depends upon :

(A) Shape of molecule

(B) Magnitude of charge and shape and mass of molecule

(C) Mass of molecule

(D) Magnitude of charge

70. Which of the following statements is true about migration of biomolecules ?

(A) The rate of migration is directly proportional to the resistance of medium

(B) Rate of migration is directly proportional to current

(C) Low voltage is used for separation of high mass molecules

(D) Rate of migration is inversely proportional to current

71. What does the electrophoresis apparatus consist of ?

(A) Gel, buffer chamber

(B) Electrophoresis unit

(C) Electrophoresis unit and gel separator

(D) Power pack and electrophoresis unit

72. If proteins are separated according to their electrophoretic mobility then the type of electrophoresis is :

(A) SDS PAGE

(B) Affinity electrophoresis

(C) Electro focusing

(D) Free flow electrophoresis

73. The electrophoretic mobility denoted as μ is mathematically expressed as :

(A) VE

(B) E/V

(C) 1/EV

(D) V/E

74. Which of the following factors does not influence electrophoretic mobility ?

(A) Molecular weight

(B) Shape of molecule

(C) Size of molecule

(D) Stereochemistry of molecule

75. When is electrophoresis not used ?

(A) Separation of proteins

(B) Separation of DNA

(C) Separation of Lipids

(D) Separation of RNA

76. The polymerization of the gel used in PAGE occurs between polyacrylamide and _____.

(A) N, N-acrylamide

(B) Bisacrylamide

(C) N-methyleneacrylamide

(D) N, N-methylene bisacrylamide

77. If DNA is digested by endonucleases in four sites giving rise to fragments of which two are equal in length how many bands would be seen after electrophoresis ?

(A) 3

(B) 4

(C) 5

(D) 6

78. The fluorescent dye such Ethidium is used for visualizing DNA. How does ethidium bind to DNA ?

(A) Stacked between histone molecules

(B) Binds to the nucleotide base

(C) Intercalated between the stacked bases

(D) Binds to the phosphodiester backbone

79. Pulse field gel electrophoresis separates DNA molecules of size _____.

(A) 10 – 20 bp

(B) 40 – 50 bp

(C) 20 – 30 kb

(D) 30 –50 kb

80. Which of the following will migrate faster ? The condition is the molecular weight of the following is equal :

(A) Supercoiled circular DNA

(B) Nicked circular DNA

(C) Single-stranded DNA

(D) Double-stranded DNA

81. Pulse field gel electrophoresis was developed by _____.

(A) Collins and John

(B) Kary Mullis

(C) Patrick O'Farrell

(D) Schwartz and Cantor

82. Sodium dodecyl sulfate (SDS) used in SDS PAGE is _____.

(A) An anionic detergent

(B) A cationic detergent

(C) A non-ionic detergent

(D) An anion exchanger

83. In SDS-PAGE, migration of protein is affected by _____.

(A) Charge of protein

(B) Size of protein

(C) Net charge of protein

(D) All of the above

84. The main advantage of discontinuous buffer system in SDS and Native PAGE is _____.

(A) Conformation of protein is conserved

(B) Constantly maintain the charge of proteins

(C) Assist in migration of protein

(D) Enhance resolution of separation

85. The pH of (i) stacking, (ii) resolving gel and (iii) tank buffer in SDS PAGE is _____ respectively.

(A) (i) 8.30 (ii) 8.80 (iii) 6.80

(B) (i) 6.80 (ii) 8.80 (iii) 8.30

(C) (i) 8.30 (ii) 6.80 (iii) 8.80

(D) Any of the above

86. The role of APS in SDS PAGE is to _____.

(A) act as a catalyst in the polymerization of acrylamide

(B) act as a source of free radicals

(C) act as a bridge between acrylamide and bis-acrylamide

(D) act as a pore builder in the polymerized gel

87. Which of the following is used as a 'tracking dye' in SDS-PAGE of protein ?

(A) Bromophenol blue

(B) Xylene cyanol

(C) Orange G

(D) All of the above

88. For the better resolution of minute protein bands in SDS-PAGE, which of the following staining methods is advised ?

(A) CBB staining

(B) Silver staining

(C) Avidin staining

(D) All of the above

89. In isoelectric focusing, proteins are separated on the basis of their :

(A) positively charged residue only

(B) negatively charged residue only

(C) size

(D) isoelectric point

90. In SDS-PAGE, the protein sample is first :

(A) treated with a reducing agent and then with anionic detergent followed by fractionation by electrophoresis

(B) fractionated by electrophoresis then treated with an oxidizing agent followed by anionic detergent

(C) treated with an oxidizing agent and then with anionic detergent followed by fractionation by electrophoresis

(D) None of the above

91. In a native PAGE, proteins are separated on the basis of :

(A) net negative charge only

(B) net charge and size only

(C) net positive charges only

(D) size only

92. Function of ß-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 breaking hydrogen bonds in the proteins

(D) For the reduction of disulfide bonds in the proteins

93. Glycerol is added to protein samples before they are loaded to the 'wells' of PAGE. The function of glycerol is to _____.

(A) stabilize protein structure

(B) provide density to the sample

(C) help to bind SDS to the protein

(D) help to reduce disulfide bonds by ß-mercaptoethanol

94. What is agarose gel ?

(A) Cross linkage molecules

(B) Purified poly-saccharide

(C) It is prepared by dissolving 0.5% agarose in boiling water and allowing it to cool to 40°C

(D) All of the above

95. Western blotting is the technique for the detection of :

(A) Specific DNA in the sample

(B) Specific RNA in the sample

(C) Specific protein in the sample

(D) Specific lipid in the sample

96. Which technique is used in DNA fingerprinting ?

(A) Eastern blotting

(B) Western blotting

(C) Northern blotting

(D) Southern blotting

97. Labelled antibodies are used to detect :

(A) particular DNA in southern blotting

(B) particular RNA in southern blotting

(C) particular protein in western blotting

(D) particular protein in southern blotting

98. Which of the following techniques is used to detect RNA in the sample ?

(A) Eastern blotting

(B) Western blotting

(C) Northern blotting

(D) Southern blotting

99. Which of the technique don't involve electrophoresis for the separation of the molecule ?

(A) Dot blot

(B) Western blotting

(C) Northern blotting

(D) Southern blotting

100. Which of the following technique is best suited for detecting the presence of gene product ?

(A) Dot blot

(B) Western blotting

(C) Northern blotting

(D) Southern blotting

4. Four alternative answers are mentioned for each question as—A, B, C & D in the booklet. The candidate has to choose the correct answer and mark the same in the OMR Answer-Sheet as per the direction :

Example :

Question :

Q. 1 (A) ● (C) (D)
Q. 2 (A) (B) ● (D)
Q. 3 (A) ● (C) (D)

Illegible answers with cutting and over-writing or half filled circle will be cancelled.

5. Each question carries equal marks. Marks will be awarded according to the number of correct answers you have.

6. 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.

7. Before writing anything on the OMR Answer Sheet, all the instructions given in it should be read carefully.

8. After the completion of the examination candidates should leave the examination hall only after providing their OMR Answer Sheet to the invigilator. Candidate can carry their Question Booklet.

9. There will be no negative marking.

10. Rough work, if any, should be done on the blank pages provided for the purpose in the booklet.

11. To bring and use of log-book, calculator, pager and cellular phone in examination hall is prohibited.

12. 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 ny discrepancy in the question Booklet, then after showing it to the invigilator, get another question Booklet of the same series.

4. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार सम्भावित उत्तर— A, B, C एवं D हैं। परीक्षार्थी को उन चारों विकल्पों में से सही उत्तर छाँटना है। उत्तर को OMR आन्सर-शीट में सम्बन्धित प्रश्न संख्या में निम्न प्रकार भरना है :

उदाहरण :

प्रश्न :

प्रश्न 1 (A) ● (C) (D)
प्रश्न 2 (A) (B) ● (D)
प्रश्न 3 (A) ● (C) (D)

अपठनीय उत्तर या ऐसे उत्तर जिन्हें काटा या बदला गया है, या गोले में आधा भरकर दिया गया, उन्हें निरस्त कर दिया जाएगा।

5. प्रत्येक प्रश्न के अंक समान हैं। आपके जितने उत्तर सही होंगे, उन्हीं के अनुसार अंक प्रदान किये जायेंगे।

6. सभी उत्तर केवल ओ. एम. आर. 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।

7. ओ. एम. आर. उत्तर-पत्रक (OMR Answer Sheet) पर कुछ भी लिखने से पूर्व उसमें दिये गये सभी अनुदेशों को सावधानीपूर्वक पढ़ लिया जाये।

8. परीक्षा समाप्ति के उपरान्त परीक्षार्थी कक्ष निरीक्षक को अपनी OMR Answer Sheet उपलब्ध कराने के बाद ही परीक्षा कक्ष से प्रस्थान करें। परीक्षार्थी अपने साथ प्रश्न-पुस्तिका ले जा सकते हैं।

9. निगेटिव मार्किंग नहीं है।

10. कोई भी रफ कार्य, प्रश्न-पुस्तिका के अन्त में, रफ-कार्य के लिए दिए खाली पेज पर ही किया जाना चाहिए।

11. परीक्षा-कक्ष में लॉग-बुक, कैलकुलेटर, पेजर तथा सेल्युलर फोन ले जाना तथा उसका उपयोग करना वर्जित है।

12. प्रश्न के हिन्दी एवं अंग्रेजी रूपान्तरण में भिन्नता होने की दशा में प्रश्न का अंग्रेजी रूपान्तरण ही मान्य होगा।

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