

Roll No. ....

Question Booklet Number

O. M. R. Serial No.

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## M. Sc. (Biotechnology) (Second Semester)

### (NEP) EXAMINATION, 2025-26

#### PLANT BIOTECHNOLOGY AND TISSUE CULTURE

Paper Code							
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Questions Booklet  
Series

**D**

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)

1. What is the typical length of the primers used in RAPD ?
  - (A) 20-30 nucleotides
  - (B) 8-10 nucleotides
  - (C) 50-100 nucleotides
  - (D) 30-50 nucleotides
2. In terms of inheritance, SCAR markers are generally considered to be :
  - (A) Dominant markers only
  - (B) Recessive markers only
  - (C) Co-dominant markers (though some can be dominant)
  - (D) Non-heritable markers
3. SCAR markers are primarily developed by cloning and sequencing fragments from which of the following ?
  - (A) RFLP
  - (B) SSR
  - (C) RAPD
  - (D) SNP
4. What causes the “polymorphism” observed in RFLP ?
  - (A) Mutations that create or abolish restriction sites
  - (B) Changes in the annealing temperature of primers
  - (C) Variations in the speed of the DNA polymerase
  - (D) The use of different types of agarose gels
5. The process where plants limit the mobility and bioavailability of pollutants in the soil (preventing them from leaching into groundwater) is :
  - (A) Phytostabilization
  - (B) Phytodegradation
  - (C) Phytoextraction
  - (D) Phytovolatilization
6. The enzyme targeted by the herbicide Glyphosate is :
  - (A) Acetolactate synthase (ALS)
  - (B) Glutamine synthetase (GS)
  - (C) Protoporphyrinogen oxidase
  - (D) 5-enolpyruvylshikimate-3-phosphate synthase (EPSPS)
7. A major limitation of phytoremediation is that :
  - (A) It is much more expensive than mechanical excavation
  - (B) It can only reach contaminants within the depth of the root zone
  - (C) It completely destroys the soil structure
  - (D) Plants grow too fast for the process to be monitored
8. Which process involves the uptake of contaminants by plant roots and their translocation to the harvestable parts (shoots and leaves) ?
  - (A) Phytostabilization
  - (B) Rhizofiltration
  - (C) Phytovolatilization
  - (D) Phytoextraction
9. What is a major environmental concern regarding the widespread use of herbicide-resistant crops ?
  - (A) Decrease in soil microbial diversity
  - (B) The emergence of “superweeds” through gene flow or high selection pressure
  - (C) Increased nutritional value of the crops
  - (D) Reduction in nutritional value of the crops

10. Chelating agents (like EDTA) are sometimes added to the soil in phytoremediation to :
- (A) Kill pests that eat the hyperaccumulators
  - (B) Increase the bioavailability and uptake of heavy metals by roots
  - (C) Stop the plant from growing too tall
  - (D) Neutralize the pH of the water
11. Roundup Ready crops are genetically modified to be resistant to which herbicide ?
- (A) Atrazine
  - (B) Paraquat
  - (C) Glyphosate
  - (D) 2,4-D
12. The most common strategy for creating herbicide-resistant plants involves :
- (A) Increasing the plant's leaf thickness to prevent absorption.
  - (B) Altering the target enzyme so the herbicide can no longer bind to it
  - (C) Developing plants that grow faster than weeds
  - (D) Increasing the plant's intake of nitrogen to offset herbicide damage
13. Biopesticides are often considered environmentally friendly because :
- (A) They have a very long residual effect in the soil
  - (B) They have a broad-spectrum activity against all organisms
  - (C) They are more toxic than synthetic chemicals
  - (D) They degrade quickly and have low toxicity to non-target organisms
14. In Tissue culture Pre-existing variations in source plant can result in :
- (A) Somaclonal variation
  - (B) Gametoclonal variation
  - (C) Mutation
  - (D) All of the above
15. In *Agrobacterium tumefaciens* the transfer of T-DNA require :
- (A) Only chromosomal DNA
  - (B) Only vir gene of Ti-plasmid
  - (C) Both chromosomal and plasmid DNA
  - (D) None of the above
16. A common disadvantage of the biolistic method is :
- (A) Tendency to cause high copy number and gene silencing
  - (B) Low frequency of stable integration
  - (C) It cannot be used on multicellular tissues
  - (D) It only works on dicotyledonous plants

17. The process of a differentiated cell reverting back to an undifferentiated state to form a callus is called :
- Differentiation
  - Redifferentiation
  - Dedifferentiation
  - Totipotency
18. Which of the following can be used as an “explant” for callus induction ?
- Root segments
  - Leaf discs
  - Anthers
  - All of the above
19. Under ideal composting conditions, biodegradable plastics are broken down into :
- Microplastics and toxic chemicals
  - CO<sub>2</sub>, water, and compost
  - Methane gas only
  - Liquid nitrogen
20. Which of the following is a naturally occurring microbial polyester used to make biodegradable plastic ?
- Polypropylene
  - Polyhydroxyalkanoates
  - Polyethylene
  - Polyvinyl Chloride
21. The most widely used microbial biopesticide is derived from :
- Agrobacterium tumefaciens*
  - Bacillus thuringiensis*
  - Saccharomyces cerevisiae*
  - Both (A) and (B)
22. The cry protein produced by Bt-gene is activated in the insect’s gut under which condition ?
- Acidic pH
  - High temperature
  - Alkaline pH
  - Presence of oxygen
23. What is a major advantage of the Gene Gun method over *Agrobacterium*-mediated transformation ?
- It is much cheaper to perform
  - It is not limited by the host range of a bacterium
  - It always results in a single copy of the gene
  - It does not require a selectable marker
24. Father of plant tissue culture is :
- Marc Van Montagu
  - Sanford and colleagues
  - Mary-Dell Chilton
  - Gottlieb Haberlandt
25. Which of these is considered as undefined organic additive often used to promote growth ?
- Caesin hydrolysate
  - Coconut water
  - Malt extract
  - All of the above
26. What is the typical pH range for most plant tissue culture media ?
- 3.5-4.5
  - 5.5 - 5.8
  - 7.0 -7.5
  - 8.0-9.0

27. To induce rooting in a callus or shoot culture, the medium should have :
- High Auxin
  - Low Auxin and High Cytokinin
  - Only Cytokinin
  - Only Gibberellins
28. The primary carbon source used in most plant tissue culture media is :
- Glucose
  - Fructose
  - Sucrose
  - Starch
29. Packed cell volume measurement is used in finding the :
- Percentage of culture showing regeneration
  - Growth of cell suspension culture
  - Testing viability of cultures
  - All of the above
30. If a cybrid is created between Parent A (sensitive to a herbicide) and Parent B (resistant, but nucleus removed), the resulting plant will be :
- Resistant to the herbicide with Parent A's nuclear traits
  - Sensitive to the herbicide with Parent B's nuclear traits
  - A complete hybrid (AB) with double the chromosomes
  - Asymmetric hybrid with nucleus of both parent
31. Growth regulator which can induce shoot organogenesis is :
- Adenine
  - Benzyl adenine
  - 6-benzyl amino purine
  - All of the above
32. Growth regulator which is most commonly used for somatic embryo induction :
- 2,4-Dichlorophenoxy Acetic Acid
  - Abscisic Acid
  - Gibberellins
  - Benzyl amino purine
33. Which of the following is undefined supplement of culture medium :
- Malt extract
  - Activated charcoal
  - Inositol
  - All of the above
34. Factors that affect organogenesis is :
- Explant Age
  - Cytokinin concentration
  - Genotype
  - All of the above

35. Select the incorrect statement :
- (A) Two protoplast can be fused by electroporation
  - (B) Somatic hybrids can be produced by fusion of two protoplasts
  - (C) Protoplast fusion can be induced by PEG
  - (D) Protoplasts have slightly negative charge on their surface
36. Process of protoplast culture includes following steps :
- (A) Isolation and culture of protoplast
  - (B) Purification, viability testing and culture of protoplast
  - (C) Isolation, Purification, viability testing and culture of protoplast
  - (D) Isolation, viability testing and culture of protoplast
37. Which of the following is most preferred source for protoplast isolation ?
- (A) Cell suspension culture
  - (B) Callus culture
  - (C) Leaf tissue
  - (D) Shoot meristem
38. Select the correct statement :
- (A) Kinetin is a Fusogen
  - (B) Hybrid embryo can be protected by embryo rescue
  - (C) Vitrification promotes micropropagation
  - (D) Shoot multiplication is promoted by Auxin
39. In protoplast fusion, the resultant hybrid cells with all genome of both parent are typically called ?
- (A) Symmetric hybrids
  - (B) Somatic hybrid cells
  - (C) Haploid cells
  - (D) Tetrad cells
40. Which of the following enzyme combinations is typically used to isolate protoplasts from plant tissue ?
- (A) Cellulase and Pectinase
  - (B) Ligase and Cellulase
  - (C) Cellulase and Lipase
  - (D) Hemicellulase and Ligase
41. Which chemical is a common “surfactant” added to the sterilizing solution to help it wet the explant surface evenly ?
- (A) Mercuric Chloride
  - (B) Tween-20
  - (C) Sorbitol
  - (D) All of the above
42. Screenable markers (reporters) differ from selectable markers because :
- (A) Screenable markers provide a visible phenotype but do not confer a survival advantage
  - (B) Selectable markers are only used in bacteria
  - (C) Screenable markers kill non-transformed cells
  - (D) Selectable markers are always fluorescent

43. The Ti plasmid, used as a base for many plant vectors, is naturally found in :
- (A) Monocotyledonous plants
  - (B) Soil microorganisms
  - (C) Water resources
  - (D) Both (B) and (C)
44. Which two vir genes are constitutively expressed (always “on”) in *Agrobacterium* ?
- (A) virA and virG
  - (B) virC and virE
  - (C) virB and virD
  - (D) virF and virH
45. In a binary vector system, where are the vir genes typically located ?
- (A) On the same plasmid as the T-DNA
  - (B) On a separate “helper” plasmid
  - (C) Integrated into the *Agrobacterium* chromosome
  - (D) They are not required in binary systems
46. The VirE2 protein’s primary role in T-DNA transfer is to :
- (A) Sense acidic pH in the environment
  - (B) Form a bridge between the bacteria and the plant cell
  - (C) Coat and protect the single-stranded T-DNA (T-strand)
  - (D) Induce tumors in the host plant
47. The function of the virB operon is to :
- (A) Cleave the T-DNA at border sequences
  - (B) Encode a type IV secretion system (T4SS) for T-DNA transport
  - (C) Bind to single-stranded T-DNA to protect it from nucleases
  - (D) Act as a transcriptional activator for other vir genes
48. Which of the following vir genes acts as a membrane-bound sensor for plant phenolic compounds ?
- (A) virB
  - (B) virA
  - (C) virD
  - (D) virE
49. Filter paper raft-nurse culture technique helps in :
- (A) Establishing cell suspension culture
  - (B) Multiplication of callus culture
  - (C) Establishing single cell culture
  - (D) None of the above
50. Haploids plants can be produced :
- (A) Gynogenesis
  - (B) Microspore culture
  - (C) Anther culture
  - (D) All of the above

51. Activated charcoal is sometimes added to the media to :
- (A) Provide extra carbon for growth
  - (B) Absorb toxic phenolic compounds released by the explant
  - (C) Make the medium look more attractive
  - (D) Increase the pH of the medium
52. Trimming the edges of an explant after sterilization is done because :
- (A) The edges may have contaminating agents
  - (B) It makes the explant fit better in the tube
  - (C) The sterilizing chemicals may damage or killed the cells at the cut edges
  - (D) It prevents the plant from growing too fast
53. Which of the following is a “Minor Element” (Micronutrient) in MS medium ?
- (A) Nitrogen (N)
  - (B) Magnesium (Mg)
  - (C) Boron ((B)
  - (D) Phosphorus (P)
54. Which technique is used to produce “virus-free” plants from an infected mother plant ?
- (A) Anther culture
  - (B) Meristem tip culture
  - (C) Protoplast fusion
  - (D) Embryo rescue
55. Which of the following is the correct sequence of steps in a standard tissue culture process ?
- (A) Inoculation, Sterilization, Selection, Hardening
  - (B) Selection of explant, Sterilization, Inoculation, Incubation, Hardening
  - (C) Hardening, Incubation, Inoculation, Sterilization
  - (D) Sterilization, Inoculation, Incubation, Hardening
56. Select the correct statement :
- (A) 2,4-D is the most common growth regulator used for somatic embryogenesis induction
  - (B) All plant cells are totipotent
  - (C) Leaf is the best plant material for induction of organogenesis
  - (D) Abscisic acid is favourable in development of somatic embryos
57. Which of the following is used to induce protoplast isolation ?
- (A) Cellulase
  - (B) Pectinase
  - (C) Macerozyme
  - (D) All of the above
58. Somatic hybrids are tested by :
- (A) Using molecular markers
  - (B) Karyotyping
  - (C) Morphophysiological characterization
  - (D) All of the above

59. What is a major industrial advantage of continuous culture over batch culture ?
- It is much cheaper for small-scale experiments
  - It prevents the accumulation of toxic metabolic waste products
  - It requires no monitoring of pH or temperature
  - It is less prone to contamination
60. A "Chemostat" is a type of continuous culture where growth is controlled by :
- The concentration of a limiting nutrient
  - The intensity of light
  - The speed of the magnetic stirrer
  - The volume of the flask
61. Which of the following is a major advantage of suspension culture over callus culture ?
- It is much slower
  - It can only be done in small test tubes
  - It does not require any hormones
  - It allows for a more uniform supply of nutrients to all cells
62. In a Continuous cell suspension Culture the growth rate is controlled by :
- Changing the temperature every hour
  - Constant addition of fresh medium and removal of used medium
  - Increasing the amount of light
  - Adding antibiotics
63. What is the primary reason for using a "Shaker" (Orbital Shaker) in suspension culture ?
- To keep the cells in the dark
  - To maintain uniform temperature only
  - To provide aeration and prevent cell clumping
  - To break the glass flasks
64. A cell suspension culture is typically initiated by placing which of the following into a liquid medium ?
- compact callus
  - Friable callus
  - pollen grains
  - Both (B) and (C)
65. Which of the following organelles are primarily transferred/mixed during cybridization ?
- Ribosomes and Mitochondria
  - Nucleus and Golgi bodies
  - Chloroplasts and Mitochondria
  - Vacuoles and Endoplasmic Reticulum
66. A Cybrid differs from a Somatic Hybrid because it contains :
- Nuclei from both parents
  - No nucleus and only cytoplasm
  - The nucleus of only one parent and cytoplasm from both
  - Two different nuclei but only one type of mitochondria

67. Why mannitol or sorbitol is added to the protoplast isolation medium ?
- To provide energy for the cell
  - To prevent the protoplasts from bursting
  - To digest the cell wall faster
  - To color the protoplasts for easy viewing
68. Which of the following is the correct sequence of steps in gene cloning ?
- Ligation → Restriction digestion → Transformation → Screening
  - Restriction digestion → Ligation → Transformation → Screening
  - Transformation → Ligation → Restriction digestion → Screening
  - Screening → Restriction digestion → Ligation → Transformation
69. What is insertional inactivation ?
- Inactivation of the insert by host nucleases
  - Disruption of a marker gene by insertion of foreign DNA, used to identify recombinants
  - Blocking of transcription by antisense RNA
  - Silencing a gene using RNA interference
70. In the context of gene cloning, what is 'transformation' ?
- Conversion of one bacterial species into another
  - Introduction of recombinant DNA into a host cell
  - Transfer of genes between plants via *Agrobacterium*
  - All of the above
71. How is a cDNA library different from a genomic library ?
- cDNA library contains only repetitive DNA sequences
  - cDNA library is made from mRNA using reverse transcriptase and lacks introns
  - cDNA library represents non-coding regions of the genome
  - cDNA library includes mitochondrial DNA only
72. What is a genomic library ?
- A collection of clones containing cDNA copies of all mRNAs in a cell
  - A collection of clones representing the entire genome of an organism
  - A database of DNA sequences stored in computers
  - A set of expressed sequence tags (ESTs)

73. What is gene cloning ?
- (A) Creating identical copies of an entire organism
  - (B) Producing multiple identical copies of a gene or DNA fragment
  - (C) Amplifying proteins using ribosomes
  - (D) Synthesising RNA from a DNA template
74. Microinjection as a gene transfer method directly injects DNA into :
- (A) The Embryo
  - (B) The nucleus or cytoplasm of individual cells using a fine glass needle
  - (C) The apoplast
  - (D) Pollen tubes
75. Which component of the T-DNA is essential for its integration into the plant genome ?
- (A) vir genes
  - (B) 25 bp border sequences (left and right borders)
  - (C) opine synthesis genes
  - (D) nod factors
76. Which of the following is an example of a viral vector used for transient gene expression in plants ?
- (A) Tobacco mosaic virus (TMV) - based vector
  - (B) pCAMBIA binary vector
  - (C) pBR322
  - (D) pUC18
77. Which selectable marker is most commonly used to identify successfully transformed plant cells in tissue culture ?
- (A) Ampicillin resistance
  - (B) Kanamycin resistance (nptII gene)
  - (C) Tetracycline resistance
  - (D) Chloramphenicol resistance
78. What is the role of the 'disarmed' Ti plasmid in plant transformation ?
- (A) It provides antibiotic resistance to the host bacterium
  - (B) Its tumour-causing genes are deleted so it can transfer DNA without causing disease
  - (C) It acts as a selection marker on the chromosome
  - (D) It degrades the cell wall of target plants

79. Which of the following is a major limitation of *Agrobacterium*-mediated transformation ?
- Low transformation efficiency in dicots
  - It cannot integrate genes into the nucleus
  - It is largely ineffective for monocot crops like maize and rice
  - It requires radioactive labelling of DNA
80. Which physical method uses high-velocity microprojectiles coated with DNA to deliver genes into plant cells ?
- Electroporation
  - Microinjection
  - Biolistics (gene gun)
  - Sonication
81. To maintain the osmotic pressure of the culture medium and prevent protoplasts from bursting, which of the following is often added ?
- Mannitol or Sorbitol
  - Sodium Alginate
  - CaCl<sub>2</sub>
  - PEG
82. What is biological control ?
- Use of natural predators or parasites to control pests
  - Use of chemicals to kill pests
  - Use of machines to remove pests
  - Genetic modification of plants to resist pests
83. Which of the following factors is critical for successful protoplast isolation ?
- Low pH and high light intensity
  - Osmotic pressure and enzyme concentration
  - High temperature and low humidity
  - Presence of mineral salts in incubation mixture
84. The first step in any protoplast culture experiment is :
- Viability testing
  - Isolation of protoplasts
  - Callus induction
  - Protoplast purification
85. Somatic hybridization involves the fusion of :
- Two male gametes
  - A male and female gamete
  - Two somatic protoplasts from different species/strains
  - A protoplast and a plasmid
86. In AFLP, what is the role of “adaptors” ?
- To cut the DNA at specific sites
  - To provide known primer binding sites for fragments with unknown sequences
  - To stain the DNA for visualization
  - To increase the mutation rate of the sample

87. What causes two DNA sequences of the same length to migrate differently in an SSCP gel ?
- (A) Differences in their molecular weight
  - (B) A change in even a single nucleotide (point mutation) affecting the folded shape
  - (C) The total number of adenine bases
  - (D) The age of the DNA sample
88. In SSCP, how is the DNA made single-stranded before electrophoresis ?
- (A) By adding extra salt to the buffer
  - (B) By using high-voltage electricity
  - (C) By heat denaturation or adding chemicals like formamide
  - (D) By using a restriction enzyme
89. For Marker Assisted Selection to be effective, the molecular marker must be :
- (A) Located far away from the target gene on the chromosome
  - (B) Closely linked (tightly associated) with the target gene or QTL
  - (C) Found only in the mitochondria
  - (D) A morphological trait like leaf shape
90. Which of the following is NOT required for performing AFLP ?
- (A) Prior sequence information of the target genome
  - (B) Restriction endonucleases
  - (C) DNA ligase
  - (D) Thermal cycler (PCR machine)
91. Which of the following best describes the AFLP technique ?
- (A) A purely hybridization-based method
  - (B) A PCR-based technique that uses random primers only
  - (C) A technique combining restriction digestion with selective PCR amplification
  - (D) A method for sequencing entire genomes
92. What is the typical length of the repeating unit in a microsatellite ?
- (A) 1-6 base pairs
  - (B) 10-30 base pairs
  - (C) 50-100 base pairs
  - (D) 20-50 base pairs
93. Microsatellites are widely used for studying evolutionary relationships because they are :
- (A) Highly conserved and never mutate.
  - (B) Only found in human beings.
  - (C) Highly polymorphic due to variations in the number of repeat units
  - (D) Coding sequences for structural proteins

94. Microsatellites are also commonly known as :
- (A) SSRS (Simple Sequence Repeats) or STRS (Short Tandem Repeats)
  - (B) SNPs (Single Nucleotide Polymorphisms)
  - (C) RFLPS (Restriction Fragment Length Polymorphisms)
  - (D) VNTRS (Variable Number Tandem Repeats) exclusively
95. Which statistical score is commonly used in QTL mapping to estimate the probability that a genetic marker is linked to a QTL ?
- (A) P-value
  - (B) Z-score
  - (C) Chi-square value
  - (D) LOD score (Logarithm of Odds)
96. Which of the following best defines a QTL ?
- (A) A single gene that determines a qualitative trait like flower colour
  - (B) A chromosomal region containing one or more genes that influence a quantitative trait
  - (C) A mutation that causes a genetic disorder
  - (D) A protein that regulates gene expression
97. Quantitative traits are typically characterised by :
- (A) Discrete categories (e.g., tall or short)
  - (B) Discontinuous variation
  - (C) Continuous variation and influence by multiple genes (polygenes)
  - (D) Simple Mendelian inheritance patterns
98. Which process is fundamental to the RFLP technique ?
- (A) DNA synthesis using Taq polymerase
  - (B) Digestion of DNA by restriction endonucleases
  - (C) Random amplification of DNA segments
  - (D) Denaturation of RNA sequences
99. RAPD markers are created using which of the following techniques ?
- (A) Restriction digestion only
  - (B) PCR amplification
  - (C) DNA sequencing
  - (D) Southern Blotting
100. Which of the following best describes the inheritance pattern of RAPD markers ?
- (A) Co-dominant
  - (B) Recessive
  - (C) Dominant
  - (D) Incomplete dominant

***(Only for Rough Work)***

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 any 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 छँटना 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।