096/23

Question Booklet Alpha Code

A

Question Booklet Sl. No.

A

Total Number of Questions : 100 **Time : 90 Minutes**

Maximum Marks : 100

INSTRUCTIONS TO CANDIDATES

1. The Question Paper will be given in the form of a Question Booklet. There will be four versions of Question Booklets with Question Booklet Alpha Code viz. **A, B, C** & **D**.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the Question Booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a Question Booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your Question Booklet is un-numbered, please get it replaced by new Question Booklet with same alpha code.

A

6. The Question Booklet will be sealed at the middle of the right margin. Candidate should not open the Question Booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the Question Booklet supplied to him/her contains all the 100 questions in serial order. The Question Booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the Question Booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices **(A), (B), (C)** and **(D)** having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

1. The best technique to determine the electrolytes in human plasma is

   A) GC B) DTA C) AAS D) MS

2. How much heat is required to vaporize one mole of a substance that has a measured vapor pressure of 0.032 atm at 0°C and 0.178 atm at 52°C ?

   A) 24.37 kJ/mol B) 26.54 kJ/mol

   C) 24.32 kJ/mol D) 26.45 kJ/mol

3. XRF technique can be used for

   A) Elemental identification

   B) Elemental composition determination

   C) Elemental separation

   D) Isotope determination

4. Micelle formation occurs when the substance is

   A) Amphoteric B) Hydrophilic C) Amphipathic D) Hydrophobic

5. Among the following, green solvents include

   i. Deep eutectic solvent

   ii. Ethyl lactate

   iii. Ionic liquid

   iv. CO_2

   v. Supercritical CO_2

   vi. FC-72

   vii. THF

   A) All except ii and vii B) iii and v only

   C) i, ii, iii, v, vi only D) i, iii, v, vi only

6. Which of the following is not connected to zeta potential ?

   A) Electrophoresis B) Dynamic light scattering

   C) Energy dispersive X-ray D) Interfacial double layer

7. Average translational energy of colloidal particles is of the order

   A) (3/2)kT per mole B) (1/2) kT per mole

   C) (1/2) kT per particle D) (3/2)kT per particle

8. Lattice spacings of inorganic materials can be analyzed using

   A) AFM B) HR-TEM C) SEM D) DLS

9. Accumulation of nutrients in lakes and water bodies is called
   A) Greenhouse effect
   B) Eutrophication
   C) Humification
   D) Toxification

10. Permanent hardness of water is due to
   A) Chloride, bicarbonate and sulphate of Ca and Mg
   B) Chloride, nitrite and sulphate of Ca and Mg
   C) Chloride, sulphate and nitrate of Ca and Mg
   D) Chloride, carbonate and nitrate of Ca and Mg

11. Ozone layer can be found
   A) 10-30 kms above earth surface
   B) 50-100 kms above earth surface
   C) At Lithosphere
   D) At Troposphere

12. Acidity of rain is best described by presence of
   A) Ammonium compounds
   B) S and N compounds
   C) S, N and ammonium compounds
   D) S or N compounds

13. To protect ozone layer and to retain properties of CFC, the latter is largely replaced by
   A) Methyl chloride
   B) Hydrofluorocarbon
   C) Fluoromethane
   D) Methane

14. The main species causing photochemical smog is
   A) Oxygen radical
   B) NO radical
   C) Ozone
   D) Hydroxide radical

15. Most radioactive element is
   A) Thorium
   B) Uranium
   C) Plutonium
   D) Radium

16. Pyrethrin is a natural
   A) Pesticide
   B) Herbicide
   C) Fungicide
   D) Insecticide

17. Oxidation using potassium dichromate is for determining
   A) BOD
   B) COD
   C) Radioactive pollution
   D) Toxicity

18. Which of the following corresponds to a linear operator ?
   A) $\hat{A}\Psi = \Psi^*$
   B) $\hat{A}\Psi = d\Psi / dx$
   C) $\hat{A}\Psi = 1/\Psi$
   D) $\hat{A}\Psi = \phi^2$

19. Consider an electron in a 1d box of length 12 $\mathring{A}$. What will be the energy difference between E6 and E5 levels (in cm^{-1}) for the electron ?
   A) 2.86
   B) 0.26
   C) 2.3×10^4
   D) 2.3×10^3

20. Which of the following statements is true for the compounds I and II where I = $[CoF_6]^{3-}$ and II = $[NiF_6]^{2-}$?

A) Both I and II are paramagnetic

B) Both I and II are diamagnetic

C) I is paramagnetic and II is diamagnetic

D) I is diamagnetic and II is paramagnetic

21. For a complex $[Mn(H_2O)_6]^{2+}$ average value of B is calculated to be 782 cm^{-1} from the _____. The value of B for free Mn^{2+} is 960 cm^{-1}. The value of nephelauxetic ratio is _____.

A) Orgel diagram,1.227

B) Orgel diagram, 0.814

C) Tanabe-Sugano diagram, 1.227

D) Tanabe-Sugano diagram, 0.814

22. Hydrous oxide precipitate of aluminium for gravimetric estimation is best made by

A) Addition of urea

B) Addition of ethyl oxalate

C) Direct hydrolysis using H^+, H_2O

D) Direct hydrolysis using OH^-, H_2O

23. An α,β – unsaturated ketone of relative molecular mass 110 has an absorption band with λ_{max} = 215 nm and ε = 10,000. A solution of this showed A = 2 in a 1 cm cell. Calculate the concentration of the ketone in g/L.

A) 2×10^{-4} B) 2.2×10^{-4} C) 2×10^{-2} D) 2.2×10^{-2}

24. Consider a column chromatogram with 2 peaks of width 1.11 and 1.21. The retention time (in minutes) for the first signal is 16.4 and for the second is 17.6. What is the column resolution ?

A) 1.2 B) 1.07 C) 1.06 D) 1.01

25. The signal for methylene protons in the proton NMR of benzyl bromide is at δ 4.6 ppm. Calculate the difference in frequency (in Hz) between this and TMS signal in a 300 MHz instrument.

A) 1360 B) 1380 C) 13800 D) 13600

26. A biopesticide
    A) 2,4 D
    B) Glyphosate
    C) Poly D Glucosamine
    D) Aminopyralid

27. In centrifugation
    A) The sedimentation velocity of a particle is inversely proportional to its mass
    B) A dense particle moves more rapidly than a less dense one because the opposing buoyant force is smaller for a dense particle
    C) A dense particle moves more rapidly than a less dense one because the opposing buoyant force is higher for a dense particle
    D) Sedimentation velocity does not depends on the density of the solution

28. Cells capable of producing antibodies
    A) T lymphocytes
    B) B lymphocytes
    C) NK cells
    D) None of these

29. Half life of radio isotope ^{32}P
    A) 7 days
    B) 14 days
    C) 87 days
    D) 164 days

30. Monoprotic acid
    A) Phosphoric acid
    B) Citric acid
    C) Succinic acid
    D) Lactic acid

31. Smallest virus
    A) Pox virus
    B) Adeno virus
    C) Mimi virus
    D) Mama virus

32. Termination codon
    A) UGA
    B) UGG
    C) AUG
    D) GAU

33. Tissue plasminogen activator
    A) Serine protease
    B) Involved in creating blood clots
    C) Convert plasmin to plasminogen
    D) Cause aggregation of activated platelets

34. Metacyc is
    A) Model organism database
    B) Meta database
    C) Microarray database
    D) Primary database

35. Common organisms causing meat spoilage
    A) *Brochothrix spp.* and *Carnobacterium spp.*
    B) *Pseudoplantarianum* and *Lactobacillus lactocasei*
    C) *Pediococcus caesi* and *Streptococcus spp*.
    D) *Pediococcus caesi* and *Pseudoplantarianum*

36. Hydrogen can be used as biofuel and can be produced directly using sugars and fatty acids by

A) Chlamydomonas
B) Clostridium
C) Saccharomycetes
D) Trichoderma

37. One gene one enzyme hypothesis is proposed by

A) Frederick Griffith
B) Beadle and Tatum
C) Sanger
D) Lederberg and Tatum

38. In Bioreactors

i. Aeration system is one of the very important parts of a fermentor.
ii. Impeller can reduce proper aeration.
iii. Impeller blades helps to reduce the size of air bubbles.
iv. A foam-controlling device is mounted on top of the fermentor to control contamination.

A) i and ii are correct
B) i and iii are correct
C) i and iii are incorrect
D) i and iv are incorrect

39. Methods for removal of marker genes in transgenic plants

A) Co transformation and site specific recombination
B) Transplastomics and gene silencing
C) Poly cation treatment and RNA interference
D) None of these

40. Nutritional edible mushrooms

i. *Volvariella volvacea* and *Agaricus bisporus*
ii. *Flammulina velutipes* and *Lentinula edodes*
iii. *Boletus edulis* and *Lentinula edodes*
iv. *Volvariella volvacea* and *Auricularia heimuer*

A) i and ii
B) ii and iii
C) ii and iv
D) i, ii, iii and iv

41. X-ray diffraction

A) Acts as an atomic microscope
B) A nondestructive technique
C) To determine the three-dimensional structure of crystals
D) All of these

42. Incomplete antigens
A) Haptens B) Epitopes C) Mitogens D) None of the above

43. Amino acid with OH side chain
A) Serine B) Aspartic acid C) Glycine D) Alanine

44. Mac Conkey's Agar
A) Selective agar
B) Only cultivates gram-negative bacterial species
C) Lactose fermenters, turn red or pink on Mac Conkey agar
D) All of these

45. Find true statements.
i. RFLP is based on polymorphism.
ii. PCR based molecular markers are cheap, but time consuming.
iii. RAPD is a PCR based method.
iv. PCR is not needed for DAF.
A) i and ii B) ii and iii C) iii and iv D) i and iii

46. In Industrial scale, ergosterol can be produced by
A) *Corynebacterium glutamicum* B) *Pseudomonas*
C) *Erwinia herbicola* D) *Saccharomyces cerevisiae*

47. Transfer of CGTase to potato leading to production of
A) Human C Protein B) Legumin
C) Glutelin D) Alpha and Beta cyclodextrins

48. Biological degradation of organic matter of sludge occurs in different stages
A) Acidogenesis and Methanogenesis
B) Hydrolysis and Methanogenesis
C) Methanogenesis and biofilms
D) Hydrolysis, Acidogenesis and Methanogenesis

49. Cytochromes are
A) Oxygen acceptors B) Electron donors
C) Electron acceptors D) Proton and electron donors

50. Volatile organic compounds can be removed by
A) Biotrickle filters B) Bioscrubbers
C) Biofilters D) All of these

51. Which fluorescent dye is used to stain bacterial nucleic acids in fluorescence microscopy ?

A) Cyanoditolyl Tetrazolium Chloride (CTC) B) Auramine

C) Rhodamine D) Acridine Orange

52. In the table given below, Column I shows different microscopy techniques and Column II shows major uses of the different microscopy techniques. Select the correct combination.

Column I		Column II	
1	Bright Field	a	Observation of dead stained organisms or live ones with sufficient natural colour contrast
2	Dark Field	b	Observation of unstained living or difficult-to-stain organisms; allows one to see motion
3	Fluorescence	c	Diagnostic tool for detection of organisms or antibodies in clinical specimens or for immunologic studies
4	Confocal	d	Observation of very specific levels of specimen
5	Transmission Electron	e	Observation of exterior surfaces of atoms or molecules
6	Scanning Tunneling	f	Examination of thin sections of cells for details of internal structure, exterior of cells, and viruses, or surfaces when freeze-fracturing is used

A) 1 – a, 2 – b, 3 – f, 4 – e, 5 – d, 6 – c B) 1 – a, 2 – b, 3 – c, 4 – d, 5 – f, 6 – e

C) 1 – a, 2 – b, 3 – e, 4 – d, 5 – c, 6 – f D) 1 – a, 2 – b, 3 – f, 4 – d, 5 – c, 6 – e

53. Which step of the Gram staining process is responsible for the differentiation of Gram-positive and Gram-negative bacteria ?

A) Application of crystal violet B) Decolorization with ethanol or acetone

C) Application of iodine D) Counterstaining with safranin

54. Which of the following statements about lyophilization are true ?

A) Rapidly frozen organisms in vials are subjected to a vacuum instrument that removes water from them and seals the vials under vacuum

B) The process allows large ice crystals to form inside the cell ensuring their preservation

C) Microbiologists use lyophilization for destruction of cultures of microorganisms rather than for long-term preservation

D) All of the above

55. Which biotyping method focuses on the identification of specific surface antigens or markers on microorganisms ?
    A) Phage typing
    B) Serotyping
    C) Genotypic typing
    D) Biochemical typing

56. Which of the following antibiotic inhibits folic acid synthesis by competitively inhibiting the enzyme dihydropteroate synthase ?
    A) Penicillin B) Vancomycin C) Gentamicin D) Trimethoprim

57. Different types of bacteria have different oxygen growth requirements. In the table given below, Column I shows names of different bacterial groups and Column II shows their descriptions. Select the correct combination.

Column I		Column II	
1	Obligate anaerobe	a	Killed by oxygen
2	Obligate aerobe	b	Must have abundant oxygen
3	Capnophile	c	Likes carbon dioxide
4	Microaerophile	d	Grows with or without oxygen
5	Facultative anaerobe	e	Needs only a small amount of oxygen

    A) 1 – a, 2 – b, 3 – c, 4 – d, 5 – e
    B) 1 – a, 2 – b, 3 – c, 4 – d, 5 – e
    C) 1 – a, 2 – b, 3 – c, 4 – e, 5 – d
    D) 1 – a, 2 – b, 3 – e, 4 – c, 5 – d

58. Which of the following statements about the lysogenic cycle of bacteriophages is true ?
    A) In lysogenic cycle, the temperate phage does not replicate itself independently and does not lyse the bacterial host cell
    B) Phage DNA is incorporated into the host bacterium's DNA; at this time it is called a prophage
    C) Temperate phages can be replicated either as a prophage along with bacterial chromosomal replication or can suddenly revert to the lytic cycle by replicating themselves and assembling into new phages
    D) All of the above

59. Which of the following diagnostic media is used to identify *Salmonella* in clinical and food samples ?
    A) Brilliant Green Agar
    B) Eosin Methylene Blue Agar (EMB)
    C) Mac Conkey Agar
    D) Mannitol-Salt Agar

60. Which process involves the movement of DNA segments from one location to another within the genome, contributing to genetic variation in bacteria ?
A) Transcription B) Translation C) Transposition D) Translocation

61. Which of the following statements about soil microorganisms is false ?
A) All major microbial taxonomic groups can be found in soil
B) They never affect or change the physical characteristics of their soil microenvironment
C) They serve a very important role as decomposers in the carbon and nitrogen cycles
D) Species of the genus *Clostridium* are important human pathogens found in soil

62. Which of the following tests is used to detect the presence of specific pathogens such as *Salmonella* and *Shigella* in water samples ?
A) Membrane filter test B) Heterotrophic plate count
C) Serological test D) Polymerase Chain Reaction (PCR)

63. Which among the following diseases is caused by a fungus that is primarily transmitted through inhalation of fungal spores in the air ?
A) Scrapie B) Histoplasmosis C) Ehrlichiosis D) Listeriosis

64. Which among the following is a sulphate-reducing bacterium ?
A) *Desulfovibrio* B) *Desulfomonas*
C) *Desulfotomaculum* D) All of the above

65. Which of the following is an example of amensalism in microbial interactions ?
A) Nitrogen-fixing bacteria providing fixed nitrogen to plants
B) Biofilm formation by bacteria in a nutrient-rich environment
C) Antibiotic production by bacteria inhibiting the growth of other bacteria
D) Synergistic metabolism between different microbial species

66. What is the major advantage of using a membrane bioreactor in wastewater treatment compared to conventional activated sludge processes ?
A) Higher effluent quality B) Lower energy consumption
C) Smaller footprint D) Reduced sludge production

67. Which microbial process involves the enzymatic conversion of Polychlorinated Biphenyls (PCBs) to more readily degradable forms ?
A) Oxidation B) Reduction
C) Hydrolysis D) Dechlorination

68. Chemolithotrophic acidophilic bacterium *Thiobacillus ferrooxidans* is used in biomining due to its ability to oxidize
A) Iron B) Copper C) Sulphur D) Metallic oxides

69. Which of the following is the advantage of employing microbial biosensors for environmental monitoring ?
    A) Real-time monitoring
    B) Wide range of analyte detection
    C) High sensitivity
    D) All of the above

70. Which of the following bioreactor designs offer improved oxygen supply for efficient waste treatment ?
    A) Membrane bioreactor
    B) Trickle bed bioreactor
    C) Plug flow bioreactor
    D) Packed bed bioreactor

71. Milk serves as an excellent substrate for the growth of microorganisms. In the table given below,Column I shows names of different microorganisms that grow on milk and Column II shows their descriptions. Select the correct combination.

Column I		Column II	
1	*Staphylococcus epidermidis*	a	Present in freshly drawn milk
2	*Acinetobacter johnsoni*	b	Causes a viscous slime to form in milk
3	*Escherichia coli*	c	Causes a faecal flavour on milk
4	*Pseudomonas species*	d	Can grow on refrigerated milk
5	*Streptococcus lactis*	e	Causes milk to sour

    A) 1 – a, 2 – b, 3 – c, 4 – d, 5 – e
    B) 1 – a, 2 – c, 3 – b, 4 – d, 5 – e
    C) 1 – b, 2 – a, 3 – c, 4 – e, 5 – d
    D) 1 – c, 2 – a, 3 – b, 4 – e, 5 – d

72. Which of the following microorganisms is responsible for spoilage of canned food as they can withstand the canning process and cause bulging of the cans and food spoilage ?
    A) *Clostridium perfringens*
    B) *Lactobacillus acidophilus*
    C) *Pseudomonas aeruginosa*
    D) *Bacillus stearothermophilus*

73. Which of the following is not a hard cheese ?
    A) Camembert B) Gruyere C) Parmesan D) Romano

74. Which of the following is the active antimicrobial ingredient in bleaching powder ?
    A) Bromide B) Hydrochloride C) Hypochlorite D) Phenol

75. Which of the following is achieved through pasteurization of milk ?
    A) It kills all microbes that is present in milk
    B) It sterilizes milk
    C) It kills all bacterial spores
    D) It kills microbial pathogens that might be present in milk

76. Who proposed the pH scale ?
    A) Soren Sorenson
    B) Robert Boyle
    C) Dmitri Mendeleev
    D) John Dalton

77. Find out the wrong statement.
    A) Extraction of integral membrane proteins requires dissolution of the membrane with detergents.
    B) Myoglobin is a metalloprotein.
    C) Protein folding occurs not stepwise generally.
    D) Molecular docking programmes stimulate the interactions that take place when a protein encounters a substrate, inhibitor or other ligand.

78. Chernobyl disaster is classified as a _____ event on the international nuclear event scale.
    A) Level seven B) Level one C) Level fifty D) None of these

79. Read the statements below :
    i. Carbon dioxide, methane and other trace gases are known as green gases.
    ii. Release of huge quantities of nitrogen and sulphur oxide into air combine with moisture and causes the acid rain.
    iii. The main component of photochemical smog is hydrogen.
    Which of the above statement/s is/are correct ?
    A) Both i and ii are correct
    B) Only i is correct
    C) Only iii is correct
    D) Both i and iii are correct

80. Identify the technique where m-RNA is separated by electrophoresis.
    A) Western blot
    B) Southern blot
    C) Eastern blot
    D) None of these

81. When RBC are placed in a hypotonic solution
    A) The cell remains unchanged
    B) The cell shrinks and eventually cease function
    C) The inter cellular water moves out
    D) The cell swell and eventually burst

82. The Hsp 60 chaperons sometimes called
    A) Homodimer
    B) Chaperonins
    C) Aggregates
    D) Proproteins

83. Find out the wrong statement from the following.
    A) Agar is an extract from red algae.
    B) Agar is a polysaccharide.
    C) Adding a small quantity of cell to the medium is called inoculation.
    D) Micro-organisms can be cultured only in solid medium.

84. _____ chemical substances that persist in the environment bio-accumulate through the food web and pose a risk causing adverse effects to human health.
A) Autogenic organic pollutants
B) Persistant organic pollutants
C) Limnonic organic pollutants
D) Nectonic organic pollutants

85. The cofactor for the enzyme reaction in PCR is
A) Sulphur dioxide
B) HCl
C) Magnesium and potassium
D) Taq polymerase

86. Read the following statements.
i. Solutions are homogenous mixture of two or more substances such as solids, liquids or gases.
ii. According to Henry's law, the solubility of a gas in a liquid is directly proportional to the partial pressure of the gas over the solution.
Choose the correct option :
A) Only i is correct
B) Only ii is correct
C) Both are incorrect
D) Both are correct

87. Find out the odd one.
A) Nucleic acid
B) Dacron
C) Cellulose
D) Rubber

88. Read the statements.
i. Before staining all the bacteria are colourless.
ii. Afterwards gram positive bacteria are stained red.
iii. Afterwards gram negative bacteria are stained violet.
iv. In gram staining of bacteria Lugol's iodine is used as mordent.
Choose the correct option :
A) All the statements are correct
B) Both i and ii are correct
C) Both ii and iii are incorrect
D) All the statements are wrong

89. 'Silent Spring' was written by
A) Ellen Swallow Richards
B) Rachel Carson
C) Gifford Pinchot
D) Aldo Leopold

90. Coarse screens are
A) Used to remove floating materials like rags, paper, wood from sewage
B) Used to remove organic materials from the sewage
C) Used to remove CO_2 and NH_3 from the sewage
D) Used to remove odour from the sewage

91. Identify the Gibbs free energy formula.
A) $pKa = - \log Ka$
B) $Ka = [H^+] [A^-]$
C) $\Delta G = \Delta H - T\Delta S$
D) $pH = pKa + \log Na$

92. Find out true statement from the following.
A) Oligosaccharides are condensation products of more than ten monosaccharides.
B) Inulin is a fructose polymer.
C) Galactose is the precursor for synthesis of ribose.
D) Heptose is a polysaccharide.

93. Identify the bacterium chiefly responsible for the leaching of metal sulphides.
A) Thiobacillus methylotrophus
B) Thiobacillus notatum
C) Thiobacillus ferroxidans
D) Thiobacillus chrysogenum

94. Eutrophication in aquatic system is due to the release of
A) Nitrate and phosphate
B) Nitrate and sodium
C) Phosphate only
D) None of these

95. Insitu bioremediation means
A) The use of natural plants for environmental clean up
B) The removal of oil contaminants naturally from the soil by adding enough nutrients to the soil
C) The piling and maintenance of oil sludge on a flat land to degrade oil waste by microbes existing in the sludge
D) None of these

96. From the following identify the disease caused due to eating of infected canned or smoked food.
A) Tetanus
B) Syphilis
C) Botulism
D) Diphtheria

97. _____ has developed a system of classifying protected areas that ranges from minimal to intensive use of the habitat by humans, with six categories.
A) ENVIS
B) CITES
C) IUCN
D) WWF

98. Which among the following statements is related to lipids are correct ?
A) Lipids are soluble in acetone
B) On alkaline hydrolysis lipids yields alcohol and amino acids
C) Lipids are not esters
D) Lipids triolein contains fatty acids and palmetic acid

99. Which is the first chlorinated organic insecticide came into wide commercial use, during Second World War ?
A) Endosulphan
B) Furadan
C) Carbofuran
D) DDT

100. Read the following statements.
i. Water functions as a base in reaction with acids.
ii. Water functions as an acid in reaction with acids.
iii. Water is a very weak electrolyte.
iv. Water is a strong electrolyte and therefore a good conductor.

Which of the above statement/s is/are correct ?
A) Only i is correct
B) Both i and iii are correct
C) Only iv is correct
D) i and iv are correct

Space for Rough Work