181/311/27

10058

Total No. of Printed Pages : 28

Question Booklet No.

(To be filled up by the candidate by blue/black ballpoint pen)

Roll No.

(Write the digits in words) .....

Serial No. of OMR Answer Sheet .....

Centre Code No.

Date .....

(Signature of Invigilator)

INSTRUCTIONS TO CANDIDATES

Use blue/black ball-point pen in the space above and on both sides of the Answer Sheet.

Soon after the issue of the Question Booklet, check the Question Booklet to ensure that it contains all the pages in correct sequence and that no page/question is missing. In case of faulty Question Booklet bring it to the notice of the Superintendent/Invigilator immediately to obtain a correct Question Booklet.

Do not bring any loose paper, written or blank, inside the Examination Hall *except the Admit Card*.

After you complete and hand over the OMR Answer Sheet to the Invigilator, *it should not be folded or mutilated*. Rough work should be done on the space provided for this purpose in the Test Booklet only.

Write your Roll Number in the space provided on the top of this page.

On the front page of the OMR Answer Sheet, write by pen your Roll Number in the space provided at the top, and by darkening the circles at the bottom. Also, write the Question Booklet Number, Centre Code Number and the Set Number (wherever applicable) in appropriate places.

Any omission/discrepancy in the above entries as per your Admit Card, Question Booklet No., Question Booklet No. and Set No. (if any) on the OMR Answer Sheet and Roll No. and OMR Answer Sheet No. on the Question Booklet, should be reported immediately to the invigilator otherwise it will not be taken cognizance of.

Each question in the Question Booklet is followed by four alternative answers. For each question you are to record only one option on the Answer Sheet by darkening the appropriate circle in the corresponding row of the OMR Answer Sheet, by pen as mentioned in the guidelines given on the first page of the Answer Sheet.

For each question, darken only one circle on the OMR Answer Sheet. If you darken more than one circle or darken a circle partially, the answer will be treated as incorrect.

Answer on the Answer Sheet in no case be changed. If you do not wish to attempt a question, leave all the circles in the corresponding row blank (such question will be awarded zero marks).

For rough work, use the inner back page of the title cover and the blank page at the end of this booklet.

On completion of the Test, the candidate must handover the OMR Answer Sheet to the Invigilator in the examination room/hall. However, candidates are allowed to take away Test Booklet and copy of OMR Answer Sheet with them.

Candidates are not permitted to leave the Examination Hall until the end of the Test.

If a candidate uses any form of unfair means, he/she shall be liable to such penalty as the University may determine and impose on him/her.

(उपर्युक्त निर्देश हिन्दी में अन्तिम आवरण–पृष्ठ पर दिये गये हैं।)

FOR ROUGH WORK / रफ कार्य के लिए

No. of Questions : 192

Time : 2 Hours] *[Full Marks : 360*

Note : (1) Attempt as many questions as you can. Each question carries **3 (three)** marks. ***One mark will be deducted for each incorrect answer.*** **Zero** mark will be awarded for each unattempted question.

(2) If more than one alternative answers seem to be approximate to the correct answer, choose the closest one.

(3) This Question Booklet comprises two Sections viz. Section-A and Section-B :

Section-A : This is compulsory.

Section-B : This contains two sub-sections having questions of two disciplines viz.,

(i) Medical Laboratory Technology

(ii) Food Processing & Management

A candidate is required to attempt only ***one*** from above two sub-sections.

SECTION – A

1. National Youth Day is observed in India on :

(1) 12 January (2) 12 June

(3) 9 January (4) 9 November

2. CAR is related to DBS and MIND is related to NJOE in the same way as DUSK is related to ..... .

(1) EVTJ (2) EVRL (3) EUTL (4) EVTL

3. QPO, SRQ, UTS, WVU, ?

(1) XVZ (2) ZYA (3) YXW (4) VWX

4. The disease caused by deficiency of thiamine is called :

(1) Pellagra
(2) Marasmus
(3) Beri-Beri
(4) Rickets

5. One of the following is ***not*** a function of bones :

(1) Place for muscle attachment
(2) Protection of vital organs
(3) Secretion of hormones for calcium regulation in blood and bones
(4) Production of blood corpuscles

6. $900 + 50 \times 2 = ?$

(1) 2000
(2) 1500
(3) 1000
(4) 1900

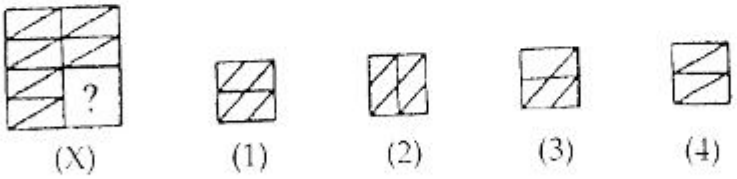
7. Who has become the world's first female cricketer to take 200 wickets in One-Day Internationals (ODI) ?

(1) Jhulan Goswami
(2) Veda Krishnamurthy
(3) Smriti Mandhana
(4) Neetu David

8. The controversial Sindol hydro-power project is located in which among the following states of India ?

(1) Maharashtra
(2) Himachal Pradesh
(3) Arunachal Pradesh
(4) Odisha

9. Identify the figure that completes the pattern :



(1) 1
(2) 2
(3) 3
(4) 4

10. Find the odd one out :

(1) 24
(2) 60
(3) 51
(4) 56

11. Insert the missing number :

10, 5, 13, 10, 16, 20, 19, (....)

(1) 22
(2) 40
(3) 38
(4) 23

12. Which among the following Buddhist Text is considered to have been originally spoken by Buddha himself ?

(1) Dhammaghosa
(2) Buddhaghosa
(3) Dhammapada
(4) Abhidhamma

13. In which year Dadasaheb Phalke Award was instituted ?

(1) 1963
(2) 1965
(3) 1967
(4) 1969

In each question below is given a statement followed by two assumptions numbered I and II. Consider the statement and decide which of the given assumptions is implicit.

14. **Statement :** The railway authorities have decided to increase the freight charges by 10% in view of the possibility of incurring losses in the current financial year.

Assumptions :

I. The volume of freight during the remaining period may remain same.

II. The amount so obtained may set off a part or total of the estimated deficit.

(1) Only assumption I is implicit
(2) Only assumption II is implicit
(3) Neither I nor II is implicit
(4) Both I and II are implicit

15. **Statement :** "Those who are appearing for this examination for first time, should be helped in filling up the forms", an instruction to the invigilating staff.

Assumptions :

I. The form is somewhat complicated.

II. Candidates can appear more than once for this examination.

(1) Only assumption I is implicit
(2) Only assumption II is implicit
(3) Neither I nor II is implicit
(4) Both I and II are implicit

16. **Statement :** Be humble even after gaining victory.

Assumptions :

I. Many people are humble after gaining victory.

II. Generally people are not humble.

(1) Only assumption I is implicit
(2) Only assumption II is implicit
(3) Neither I nor II is implicit
(4) Both I and II are implicit

17. Pointing to a photograph, a man said, "I have no brother or sister but that man's father is my father's son." Whose photograph was it ?

(1) His own
(2) His Son
(3) His Father
(4) His Grandfather

18. In following question; arrange the words in a meaningful, logical order and then select the appropriate sequence from the alternative given below for each of the group of words.

(i) House
(ii) Street
(iii) Room
(iv) Town
(v) District

(1) (iii), (i), (iv), (ii), (v)
(2) (iii), (ii), (i), (iv), (v)
(3) (iii), (i), (ii), (v), (iv)
(4) (iii), (i), (ii), (iv), (v)

19. Choose the odd one :

(1) clarinet
(2) accordion
(3) drum
(4) corridos

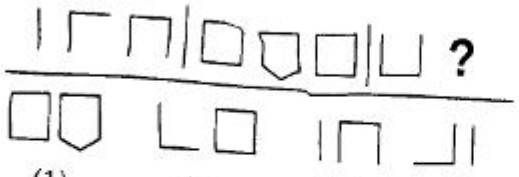
Direction (For Question No. **20** and **21**) : Look carefully at the sequence of symbols to find the pattern. Select the correct pattern.

20. ↑↗ → ↘↓↙ ?

↖ ← ↑ ↔

(1) (2) (3) (4)

(1) 1 (2) 2 (3) 3 (4) 4

21. 

(1) (2) (3) (4)

(1) 1 (2) 2 (3) 3 (4) 4

22. Jaya correctly remembers that her father's birthday is after 18th May but before 22nd May. Her brother correctly remembers that his father's birthday is before 24th May but after 20th May. On which date in May was definitely their father's birthday ?

(1) 20 (2) 21

(3) 19 (4) 18

23. The Battle of Plassey was a major battle that took place on :

(1) 23 June, 1757 (2) 27 June, 1757

(3) 27 June, 1767 (4) 23 June, 1767

24. Which of the following is the world's oldest active volcano ?

(1) Ulawun, Papua New Guinea (2) Sakurajima, Japan

(3) Mt Etna, Italy (4) Mount Merapi, Indonesia

25. Folk dance 'Bagurumba' belongs to which state ?

(1) Himachal Pradesh (2) Assam

(3) Jammu and Kashmir (4) Chhattisgarh

26. Tehri dam is located in :

(1) Uttarakhand (2) Himachal Pradesh

(3) Orissa (4) Andhra Pradesh

27. Members drawn from the party in power and the parties/groups in opposition to perform specified functions and form vital links in the internal organization of a party inside Parliament :

(1) Whips (2) Pillars

(3) Standings (4) Statute

28. The Constitutional Amendment Act which attempted to reduce the power of the Supreme Court and High Courts was :
(1) Twentieth Amendment Act, 1966
(2) The Forty-second Amendment Act, 1976
(3) The Forty-fourth Amendment Act, 1978
(4) Thirty-first Constitutional Amendment Act, 1973

29. Which Article of the Constitution of India embodies equal pay for equal work for both men and women ?
(1) Article 21
(2) Article 29
(3) Article 39
(4) Article 49

30. Who is the founder of quantum theory of radiation ?
(1) Einstein
(2) Plank
(3) Bohr
(4) S. N. Bose

31. 'Anmol Bhet' is a work of :
(1) Munshi Premchand
(2) Ramdhari Singh Dinkar
(3) Rabindranath Tagore
(4) Jaishankar Prasad

32. Chabahar Port is located in :
(1) Pakistan
(2) Saudi Arabia
(3) Iran
(4) Iraq

33. Who is the author of 'The Ministry of utmost Happiness' ?
(1) Urvashi Butalia
(2) Arundhati Roy
(3) Anita Desai
(4) Jhumpa Lahiri

34. Which sports is Prithvi Shaw associated with ?
(1) Hockey
(2) Basketball
(3) Football
(4) Cricket

35. Which of the following events completed hundred years in 2017 ?
(1) French revolution
(2) Chinese revolution
(3) Russian revolution
(4) American revolution

36. Who won the gold medal in Javelin throw in Commonwealth Games 2018 ?
(1) Neeraj Chopra (2) Sumit Malik
(3) Jitu Rai (4) Gaurav Solanki

37. The first Israeli Prime Minister to visit India is :
(1) Benjamin Netanyahu (2) Ariel Sharon
(3) Ehud Barak (4) Shimon Peres

Directions **(Question No. 38-40) :** Fill in the blanks with correct option :

38. I hate it when my little brother ..... fun of me.
(1) does (2) plays (3) enacts (4) makes

39. Have you ..... your homework ?
(1) done (2) do (3) been done (4) had done

40. We have ..... in this country.
(1) free (2) liberal (3) freedom (4) safely

Directions **(Question No. 41 & 42) :** Fill in the blanks with correct preposition :

41. This train travels from London ..... Paris.
(1) to (2) until (3) about (4) around

42. We stood at the back ..... the theatre.
(1) at (2) on (3) up (4) of

Directions **(Question No. 43-45) :** the underlined part of the given sentence has an error. Choose the correct option in each of the sentences to make them acceptable.

43. We cannot imagined it.
(1) imagine it (2) imagining it
(3) have imagined (4) imagining

44. I had wait for you.
(1) waiting (2) will waiting (3) was waited (4) waited

45. You are waste your time.
(1) wasted (2) wasting (3) will wasted (4) had wasted

Directions **(Question No. 46 & 47) :** from the given options, choose the one which can be substituted for the given group of words :

46. One who is out to subvert a government ?

(1) Anarchist (2) Tourist (3) Fascist (4) Terrorist

47. One who is easily deceived ?

(1) Fatalist (2) Gullible (3) Plagiarist (4) Ambiguous

48. Choose the correct passive form of "He opens the door" :

(1) the door was opened by him (2) the door will be opened by him

(3) the door is opened by him (4) the door has been opened by him

SECTION – B

(i) Medical Lab. & Tech.

49. Example of epithelial hyaline is :

(1) Corpora amylaceae (2) Brain sand

(3) Renal casts (4) All

50. Which of the following would ***not*** induce chronic inflammation in a patient ?

(1) Atherosclerosis (2) Lupus

(3) Small cell carcinoma of the lung (4) Tuberculosis

51. The increase in local blood flow in response to an increase in local metabolic activity is called :

(1) Active hyperaemia (2) Active hypertension

(3) Passive hyperaemia (4) Passive hypertension

52. Projectile vomiting in newborns is suggestive of :

(1) Pyloric stenosis (2) Diaphragmatic hernia

(3) Oesophageal atresia (4) Enterovirus infection

53. Acute renal failure due to prostatic enlargement is considered :

(1) Post-renal failure (2) Pre-renal failure

(3) Renal failure (4) None of the above

54. The majority of patients with Transitional Cell Carcinoma of the bladder have :
(1) Painless haematuria
(2) Oligouria
(3) Abdominal cramps
(4) Erectile dysfunction

55. Which of these paraneoplastic syndromes is ***not*** likely to be present in renal cell carcinoma ?
(1) Hypertension
(2) Hypocalcaemia
(3) Amyloidosis
(4) Polycythaemia

56. Herd immunity is important in all except :
(1) Polio (2) Measles (3) Tetanus (4) Diphtheria

57. "Strawberry tongue" followed by "raspberry tongue" is characteristic of :
(1) Mumps (2) Measles (3) Chickenpox (4) Scarlet fever

58. In India "Rabies free" zone is :
(1) Goa (2) Sikkim (3) Lakshadweep (4) Nagaland

59. Inhalation of cotton fibre dust over long periods of time causes :
(1) Bagassosis (2) Byssinosis (3) Farmer's lung (4) Anthracosis

60. The most invasive and virulent species of Brucella Micro-organism is :
(1) *B. Melitensis* (2) *B. Abortus* (3) *B. Suis* (4) *B. Canis*

61. Which of the following disease has been eradicated through vaccinations ?
(1) Polio (2) Measles (3) Tetanus (4) Diphtheria

62. Milk transmits all except :
(1) Endemic typhus
(2) Q fever
(3) Typhoid fever
(4) Brucellosis

63. Amyloid is best demonstrated by :
(1) H & E stain
(2) Congo red stain
(3) Best Carmine stain
(4) Perl's stain

64. Formalin fixative increases affinity of chemical compound for :
(1) Acid stain (2) Basic stain (3) Both (4) Neither

65. Which of the following is a viral disease ?
(1) Tuberculosis (2) Cholera (3) Plague (4) Yellow fever

66. Which one of the following diseases has been eradicated ?
(1) Smallpox (2) Tuberculosis (3) Brucellosis (4) Yellow fever

67. Which is the following is a bacterial disease ?
(1) Smallpox (2) Tuberculosis (3) Rabies (4) Yellow fever

68. The following is a zoonotic disease :
(1) Smallpox (2) Measles (3) Rabies (4) Yellow fever

69. Chickenpox virus belong to the following viral family :
(1) *Poxviridae* (2) *Herpesviridae*
(3) *Parvoviridae* (4) *Rabdoviridae*

70. Rabies virus belongs to the following viral family :
(1) *Poxviridae* (2) *Herpesviridae*
(3) *Parvoviridae* (4) *Rabdoviridae*

71. Brucellosis disease in human being is primarily transmitted from ..... .
(1) Ticks and Mites (2) Flies
(3) Infected animals (4) None of the above

72. Appearance of Negri bodies in the neurons is a pathognomonic to the following disease :
(1) Bird Flu (2) Rabies
(3) Yellow fever (4) All of the above

73. True about lipid bi-layer of cell membrane :
(1) Asymmetrical arrangement of cell membrane components
(2) Lateral diffusion of ions
(3) Symmetrical arrangement of cell membrane components
(4) Not made up of amphipathic lipids

74. Glucose is co-transported with Na + ions. This is a type of :

(1) Secondary active transport
(2) Primary active transport
(3) Facilitated diffusion
(4) Simple diffusion

75. Nucleotide bases and aromatic amino acids absorb light respectively at :

(1) 280nm and 260nm
(2) 260nm and 280nm
(3) 270nm and 280nm
(4) 260nm and 270nm

76. "All enzymes are not protein", this statement is justified by :

(1) All enzymes do not follow the Michaelis Menton hypothesis
(2) RNAs act as ribozymes
(3) Antibodies take part in the catalysis of many reactions
(4) Metals are involved in attachment to enzymes and catalysts

77. The rate-limiting enzyme of Glycolysis is :

(1) Phosphofructokinase
(2) Glucokinase
(3) G-6 Phosphate
(4) Glucose-1 Phosphate

78. Enzyme responsible for complete oxidation of glucose to CO_2 & H_2O is present in :

(1) Cytosole
(2) Mitochondria
(3) Endoplasmic reticulum
(4) Inner mitochondrial membrane

79. The final product in the oxidation of odd chain fatty acids are :

(1) Acetyl CoA & malonyl CoA
(2) Acetyl CoA & propionyl CoA
(3) Acetyl CoA & succinyl CoA
(4) Acetyl CoA & acetyl CoA

80. Metabolic pathway concerned with the formation of pentose sugars and $NADPH_2$:

(1) Glycolysis
(2) Krebs Cycle
(3) Pentose phosphate pathway
(4) Electron transport chain

81. Normal blood glucose level of Human being :

(1) 40-60 mg/dl (2) 220mg/dl (3) 10-50mg/dl (4) 80-100mg/dl

82. Of the following, which is the first acute-phase protein to increase in the serum ?

(1) Haptoglobin
(2) α1-antichymotrypsin
(3) α1-acid glycoprotein
(4) C3

83. In diabetes mellitus, glucagon levels are :

(1) elevated due to high insulin
(2) lowered due to high conversion to glucose
(3) lowered due to low insulin
(4) elevated and not suppressed by carbohydrate loading

84. The presence of which cast has the least clinical significance ?

(1) Red cell (2) Epithelial (3) Granular (4) Hyaline

85. Physiologically important buffers maintaining body pH include all of the following except :

(1) Bicarbonate (2) Lactate (3) Phosphate (4) Hemoglobin

86. Glutathione is composed of :

(1) Cysteine & glycine
(2) Glutamic acid, cystine & glycine
(3) Glutamic acid, glycine & cystine
(4) Glutamic acid

87. Post transcriptional modification to the 3'-end of eukaryotic mRNAs. What is added to the 3'-end of many eukaryotic mRNAs after transcription ?

(1) introns
(2) poly A tail
(3) a cap structure, consisting of a modified G nucleotide
(4) the trinucleotide 5'-CCA

88. The β subunit of polymerase has a function of ..... .

(1) Promoter binding
(2) Catalytic center
(3) Template binding
(4) Cation binding

89. Which of the following is ***not*** a feature of eukaryotic gene expression ?

(1) polycistronic mRNAs are very rare

(2) many genes are interrupted by noncoding DNA sequences

(3) RNA synthesis and protein synthesis are coupled as in prokaryotes

(4) mRNA is often extensively modified before translation

90. The primary RNA transcript of the chicken ovalbumin gene is 7700 nucleotides long, but the mature mRNA that is translated on the ribosome is 1872 nucleotides long. This size difference occurs primarily as a result of :

(1) capping

(2) cleavage of polycistronic mRNA

(3) removal of poly A tails

(4) splicing

91. Which statement is ***not*** true about nucleic acid hybridization ?

(1) it depends on complementary base pairing

(2) a polysaccharide can hybridize with a DNA strand

(3) a DNA strand can hybridize with another DNA strand

(4) a RNA strand can hybridize with a DNA strand

92. The regions of DNA in an eukaryotic gene that encode a polypeptide product are called :

(1) hnRNAs

(2) exons

(3) enhancers

(4) leader sequence

93. Which scientists first gave experimental evidence that DNA is the genetic material ?

(1) Avery, MacLeod, and McCarty who repeated the transformation experiments of Griffith, and chemically characterized the transforming principle.

(2) Garrod, who postulated that Alcaptonuria, or black urine disease, was due to a defective enzyme.

(3) Beadle and Tatum, who used a mutational and biochemical analysis of the bread mold Neurospora to establish a direct link between genes and enzymes.

(4) Meselson and Stahl who showed that DNA is replicated semiconservatively.

94. When the action potentials are conducted from node to node in myelinated nerve fibres :
(1) Saltatory conduction (2) Stationary conduction
(3) Threshold potential (4) Synaptic conduction

95. Oxytocin stimulates :
(1) Milk ejection (2) Uterine contractions
(3) Both (1) and (2) (4) None

96. β subunit of globin chain in an adult haemoglobin is replaced by ..... subunit in fetal haemoglobin.
(1) Alpha (2) Gamma (γ) (3) Delta (4) None

97. Cloride shift is otherwise known as :
(1) Hills coefficient (2) Hamburgers phenomena
(3) Bohr Effect (4) Haldane Effect

98. Active form of insulin is synthesized in :
(1) Secretory vesicles of pancreatic beta cells
(2) Secretory vesicles of pancreatic alpha cells
(3) Secretory vesicles of pancreatic delta cells
(4) Both (1) and (2)

99. Which hormone is responsible for spermiogenesis process ?
(1) FSH (2) LH (3) Cortisol (4) Testosterone

100. In fetal heart, the pulmonary artery opens to aorta via :
(1) Ductus arteriosus (2) Ductus venosus
(3) Aortic valve (4) Foramen ovale

101. The principal stimulus for red blood cell production in low oxygen states is a circulating hormone called :
(1) Erythropoietin (2) Cortisol (3) Estrogen (4) Thyroxine

102. Acute increase in number of neutrophils in the blood :
(1) Neutropenia (2) Neutrophilia (3) Anemia (4) Polycythemia

103. Anticoagulant used for blood glucose estimation is :

(1) Sodium Oxalate
(2) EDTA
(3) NaF
(4) Both (1) and (2)

104. The agglutinin present on Blood Type B :

(1) Anti A
(2) Anti B
(3) Anti A and Anti B
(4) None

105. Hemoglobin is composed of :

(1) 4 heme groups and 1 molecule of globin
(2) 1 heme groups and 1 molecule of globin
(3) 1 heme groups and 4 molecule of globin
(4) 2 heme groups and 2 molecule of globin

106. Which clotting factor is known as Christmas factor ?

(1) Factor IV (2) Factor V (3) Factor X (4) Factor IX

107. Which of the following true regarding gastrulation ?

(1) Establishes all the three germ layers.
(2) Occurs at the caudal end of embryo prior to its cephalic end.
(3) Involves the hypoblastic cells of inner cell mass.
(4) Usually occurs at 4 weeks.

108. Which forms the junction of frontal, parietal, temporal and greater wing of sphenoid ?

(1) Lambda (2) Inion (3) Pterion (4) Vertex

109. All of the following present in pterygomandibular space except :

(1) Nerve to mylohyoid
(2) Chorda tympani
(3) Long buccal nerve
(4) Nerve to pterygoid

110. Cranial nerve which emerge from dorsal surface of brain :

(1) II (2) IV (3) VI (4) VII

111. Superficial external pudendal artery is a branch of :
(1) Femoral artery
(2) External iliac artery
(3) Internal iliac artery
(4) Aorta

112. Maxillary nerve passes through which foramen ?
(1) Foramen ovale
(2) Foramen rotundum
(3) Foramen spinosum
(4) Foramen lacerum

113. Positive selection in the thymus occurs when thymocytes express functional versions of which critical molecule ?
(1) CD28
(2) Fc receptor
(3) MHC class I
(4) T-cell receptor (TCR)

114. Dendritic cells, macrophages, and what other cell types are considered "professional antigen presenting cells," capable of antigen presentation to T helper cells ?
(1) B cells (2) Basophils (3) Eosinophils (4) Mast cells

115. Antigens from which one of the following microbes would be presented on MHC class I molecules by macrophages ?
(1) Ascaris lumbricoides
(2) Candida albicans
(3) Haemophilus influenzae
(4) Influenza virus

116. Activation of macrophages is best achieved by which cytokine ?
(1) Interferon gamma (IFN-γ)
(2) Granulocyte monocyte colony-stimulating factor (GM-CSF)
(3) Interleukin-l
(4) Macrophage chemotactic protein (MCP)

117. Which one of the following cytokines plays the most important role in protection against intracellular growth (reactivation) of Mycobacterium tuberculosis ?
(1) Interferon-γ (2) Interleukin-2 (3) Interleukin-5 (4) Interleukin-10

118. The viral infection began in the respiratory tract. Which antibody class would best protect respiratory epithelial cells from viral infection ?
(1) IgA (2) IgD (3) IgE (4) IgG

119. What structural feature is uniquely found on IgA in breast milk and not found on serum IgM ?

(1) Fab
(2) FcR
(3) Hinge region
(4) Secretory piece

120. Plasma cells secreting IgA are especially abundant in which body site ?

(1) Bone marrow
(2) Germinal centers of cervical lymph nodes
(3) Lamina propria of mucosa
(4) Thoracic duct

SECTION – B

(ii) Food Processing & Management

121. Neurolethyrism is caused by a toxin from the peas of the genus Lathyrus and is believed to be caused by the toxin :

(1) BOAA
(2) Botulinum toxin
(3) Tetrodotoxin
(4) Oxolyl amino acid

122. Which of the following test is used to check the efficiency of pasteurization of milk ?

(1) Phosphatase test
(2) Standard plate count
(3) Coliform count
(4) All of the above

123. The enzymatic browning is due to the oxidation of phenol in to :

(1) Phenoloxidase
(2) Tyrosinase phostaphatose
(3) Quinolins
(4) Orthoquinones

124. The percentage fat present in double toned milk is :

(1) 0.5 (2) 1.5 (3) 3.0 (4) 4.5

125. The solvent commonly used to determine fat content is :

(1) Ethyl alcohol (2) Hexane (3) Acetone (4) Benzene

126. Primary source of microbial contamination of Honey is :

(1) Zygosaccharomyces
(2) Azotobacter
(3) Fusarium
(4) Candida

127. A diet high in saturated fats can be linked to which of the following organ failure ?

(1) Kidney (2) Lung (3) Skin (4) Heart

128. Which of the following is the best source for omega-3 fatty acid ?

(1) Corn oil (2) Wheat products

(3) Pork (4) Sardines

129. The class of trans-fat present in meat is :

(1) Oleic acid (2) Vaccenic acid

(3) Eicosapentaenoic acid (4) Arachidonic acid

130. Bread staling is caused by :

(1) Caramelisation (2) Gelatinisation

(3) Retrogradation (4) Aggregation

131. To produce Blue veined cheese, the curd is inoculated with following strain of bacteria :

(1) Propionibacterium shermanii (2) *Penicillium roqueforti*

(3) Penicillium comemberti (4) Brevibacterium linens

132. Which of the following vitamin is found exclusively in animal food ?

(1) Folic acid (2) Cobalamine

(3) Niacin (4) Riboflavin

133. When do we say that food is adulterated under PFA Act ?

(1) If it is obtained from a diseased animal

(2) If spices are sold without their essence

(3) If any ingredient is injurious to health

(4) All of the above

134. Which of the following is ***not*** a step in modern milling of wheat ?

(1) Stone grinding (2) Wheat conditioning

(3) Wheat milling (4) Cleaning

135. Human milk contain :
(1) High percentage of linolenic acid and oleic acid
(2) High percentage of linolenic acid
(3) High percentage of prostaglandin
(4) High percentage of linolenic and prostaglandin

136. Natural vinegar contain :
(1) 3.5% acetic acid
(2) 2% acetic acid
(3) 1% acetic acid
(4) Formic acid & acetic acid

137. Which one of the following statement is ***correct*** about Cocoa ?
(1) Obtain from grains
(2) Rich in amino acid
(3) Poor in fat
(4) Rich in fat and threonine

138. Which of the following statement is ***true*** regarding meat ?
(1) Poor in calcium and rich in phosphorus
(2) Rich in calcium and rich in phosphorus
(3) Rich in calcium and poor in phosphorus
(4) Poor in calcium and poor in phosphorus

139. During malting, barley and other grains are broken down by :
(1) Heating to 95°C
(2) Lagering
(3) Amylases
(4) Yeasts

140. Salting, as preservatives :
(1) Retards growth of *Staphylococcus aureus*
(2) Plasmolyses bacteria and fungi
(3) Is used to prevent growth of halophiles
(4) All of the above

141. Nitrates maintain the red color of preserved meats and :
(1) Are among the most widely used preservatives
(2) Inhibit germination of botulism spores
(3) Maintain a high osmotic pressure to kill microorganism
(4) Prevent mould

142. The primary protein present in milk is :
(1) Casein (2) Albumin (3) Globulin (4) All of them

143. Which of the following is "hard cheese" ?
(1) Brick (2) Montery jack (3) Cheddar (4) Bric

144. Carbohydrate content in potato is :
(1) 12% (2) 22% (3) 32% (4) 42%

145. Which refrigerant is commonly used in cold storage in India ?
(1) Ethylene (2) Carbide
(3) Ammonia (4) Sodium benzoate

146. Yellow colored vegetables are rich source of :
(1) Vit. A (2) Vit. B (3) Vit. C (4) Vit. D

147. Vacuum cooling is most suitable for :
(1) Fruits (2) Tubers
(3) Leafy vegetables (4) All of them

148. Vegetable fats are :
(1) Saturated fats (2) Unsaturated fats
(3) Monounsaturated fats (4) Disaturated fats

149. Dry storage means at a temperature about ..... and humidity below ..... .
(1) 20, 50% (2) 100, 50% (3) 20, 80% (4) 100, 80%

150. Which of the following is a function of a chemical additive ?
(1) Preservation (2) Serve as taste enhancer
(3) Color modifiers (4) All of them

151. Hemagglutinins are found in :
(1) Linseed (2) Soyabean (3) Potato (4) Groundnut

152. Which among the following is rich in methionine ?
(1) Groundnut (2) Sesame (3) Soyabean (4) Cottonseed

153. Pungency in chilly is due to the presence of :
(1) Capsaicin (2) Sulphur (3) Amide (4) Magnesium

154. Whiptail in cauliflower is due to the deficiency of :
(1) Calcium (2) Boron (3) Manganese (4) Molybdenum

155. The sweetness of corn sugar is mainly due to :
(1) Glucose (2) Fructose (3) Maltose (4) Lactose

156. Red color of tomato is due to presence of :
(1) Lycopene (2) Anthocyanin (3) Xanthophylls (4) β-carotene

157. Cereals are generally deficient in :
(1) Lysine (2) Methionine (3) Tryptophan (4) Leucine

158. Pectin is measured by :
(1) Refractometer (2) Thermometer
(3) Jelly meter (4) Spectrophotometer

159. Lactose can occur in ..... crystalline form.
(1) One (2) Two (3) Three (4) Four

160. In the manufacture of 'spray dried milk powder' maximum destruction of microorganisms takes place during the :
(1) Pre-heating stage of milk (2) Thermal evaporation stage
(3) During spray drying stage (4) During prolonged storage

161. Wheat bran contains approximately ..... % protein.
(1) 4.3 (2) 14.3 (3) 24.3 (4) 30.5

162. Zein is a ..... type of protein.
(1) Albumin (2) Globulin (3) Glutelin (4) Prolamin

163. Yellow color of cow milk is due to presence of :
(1) Riboflavin (2) Vit. B6
(3) Cyanocobalamin (4) None of these

164. Glycerol monostearate is commonly used as a :

(1) Stabiliser (2) Preservative (3) Emulsifier (4) Anti-oxidant

165. Which of the following class of enzymes are used in coffee bean fermentation ?

(1) Hydrolases (2) Proteases (3) Takadiastase (4) Pectinases

166. Scalping is also known as :

(1) Grading (2) Rough cleaning

(3) Separating (4) Dust removal

167. Saponins are found in :

(1) Soyabean (2) Faba bean (3) Kidney bean (4) Broad bean

168. High pectin content in jam causes :

(1) Crystallization (2) Premature setting

(3) Gummy jam (4) Surface graining

169. Shaffer-Somogyi micro method is used for the estimation of :

(1) Sugar (2) Citric acid

(3) Total soluble solid (4) Ascorbic acid

170. Marbling is defined as :

(1) Intramuscular fat which can be visibly detected when the muscle surface is cut

(2) Intramuscular fat which cannot be visibly detected

(3) Both of the above

(4) None of the above

171. The principle protein present in rice is :

(1) Glutenin (2) Oryzenin (3) Zein (4) Gliadin

172. Richest source of Vit. C is :

(1) Gauva (2) Barbedos Cherry

(3) Litchi (4) Pine Apple

173. Inhibition of sprouting in onions can be done by :
(1) Ethyl bromide
(2) Ethylene
(3) Malic hydrazide
(4) Formaldehyde

174. Permissible limit of SO_2 in squash is :
(1) 350 ppm (2) 700 ppm (3) 200 ppm (4) 300 ppm

175. Maize is deficient in which amino acids ?
(1) Methionine and Lysine
(2) Lucien and Lysine
(3) Methionine and Tryptophan
(4) Lysine & Tryptophan

176. Maximum permissible limit for addition of antioxidant in food is :
(1) 0.01 to 0.02%
(2) 0.15 to 0.25%
(3) 10 to 20%
(4) 0.1 to 0.2%

177. Father of white revolution is :
(1) V. Kurean
(2) C. V. Raman
(3) Shrikant Desai
(4) Vijay Nadkarni

178. Cereal which is rich in Calcium is :
(1) Maize (2) Ragi (3) Bajra (4) Oat

179. Glazing of fish is done to protect fish from :
(1) Reduction and freeze burn
(2) Oxidation and freeze burn
(3) Oxidation and moisture loss
(4) Reduction and moisture loss

180. Frankfaurter sausages are :
(1) Cured, cooked & unsmoked
(2) Uncured, cooked & smoked
(3) Cured, cooked & smoked
(4) Uncured, cooked & unsmoked

181. Which one of the following microorganism is used in the preparation of bread ?
(1) Candida utilis
(2) Saccharomyces cerevisiae
(3) Saccharomyces cevarum
(4) Aspergilus niger

182. The test used for detection of starch :
(1) Glucose test (2) Sodium test (3) Iodine test (4) Salt test

183. The acid present in lemon is :
(1) Lactic acid (2) Malice acid (3) Tartaric acid (4) Citric acid

184. Which of the following Vitamins is absent in cheese ?
(1) Vit. C (2) Vit. A (3) Vit. D (4) Vit. E

185. The debittering enzyme used in fruit processing industries is :
(1) Amylase (2) Cellulase (3) Asperginase (4) Naringinase

186. HTST (High Temperature Short Time) pasteurization process is done by heating at :
(1) 60°C for 30 min (2) 65°C for 20 min
(3) 121°C for 1 min (4) 72°C for 10 sec.

187. Development of Rancid flavor in food product is due to oxidative damage of :
(1) Protein (2) Carbohydrates (3) Vitamins (4) Lipids

188. Artificial sweetener used in low calorie food includes :
(1) Aspertame (2) Stevia (3) Sorbitol (4) Hespiridine

189. The TSS of jam is :
(1) 60° Brix (2) 68° Brix (3) 45° Brix (4) 48° Brix

190. In grape wine the alcohol content is :
(1) 5-6% (2) 7-9% (3) 20-25% (4) 12-15%

191. The pesticide residues present in milk sample can be determined by :
(1) Texture analyzer (2) pH meter
(3) HPLC (4) Refractometer

192. The Flax seed oil is rich in :
(1) Cholesterol (2) Phytosterol
(3) Carbohydrate (4) Proteins

FOR ROUGH WORK / रफ कार्य के लिए

अभ्यर्थियों के लिए निर्देश

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[illegible] कोई भी खुला कागज साथ में न लाएं।

[illegible] OMR उत्तरपत्र का ही मूल्यांकन किया जाएगा।

[illegible]

[illegible] निर्धारित स्थान पर लिखें तथा [illegible] वहाँ प्रश्न-पुस्तिका का क्रमांक तथा सेट का नम्बर [illegible]

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