



सार्वजनिक आरोग्य विभाग परिक्षा
महाराष्ट्र शासन
प्रश्नपुस्तिका



Test Booklet No.: [REDACTED]

प्रश्नपुस्तिका क्रमांक

Test Booklet Code

D

Roll Number [REDACTED]

Answer sheet No. [REDACTED]

Post Code: 33 \ Bacteriological Assistant/Laboratory Technician

Total Questions: 100

Total Marks: 200

Time: 2 Hours

Name and
Signature of the Candidate

Signature of the Invigilator

IMPORTANT INSTRUCTIONS

महत्वाच्या सूचना

1. The test is of 2 hours duration and Questions Booklet contains 100 questions. Each question carries 02 mark. For each correct response, the candidate will get 02 mark.	१. परिक्षेसाठी २ तासांची वेळ आहे. प्रश्न पुस्तिकेमध्ये १०० प्रश्न आहेत. प्रत्येक प्रश्नासाठी दोन गुण आहे. प्रत्येक अचूक उत्तरास दोन गुण मिळेल.
2. Use Blue/Black Ball point Pen only for writing particulars on this page or marking responses.	२. या पानावर तपशील लिहिण्यासाठी अथवा चिन्हांकित करण्यासाठी निळा/काळा बॉलपॉइंट पेन वापरा.
3. Rough work is to be done on the space provided for this purpose in the Questions Booklet only.	३. कच्चे काम करायचे असल्यास त्यासाठी याच प्रश्न पुस्तिकेमध्ये उपलब्ध केलेल्या स्वतंत्र जागेचा उपयोग करावा.
4. On completion of the test, the candidate must handover the Answer Sheet to the Invigilator before leaving the Examination Hall. The candidates are allowed to take away this Questions Booklet with them after examination is over.	४. परिक्षा पूर्ण झाल्यानंतर उमेदवाराने परिक्षाकेंद्र सोडण्यापूर्वी उत्तर पत्रिका समावेशकांकडे जमा करणे बंधनकारक आहे. मात्र प्रश्नपुस्तिका उमेदवाराना बरोबर घेऊन जाण्याची परवानगी आहे.
5. The candidates should ensure that Answer Sheet is not folded. Do not make any stray marks on the Answer Sheet. Do not write your Roll No. Anywhere else except in the specified space in the Questions Booklet and Answer Sheet.	५. उमेदवाराने उत्तरपत्रिकेच्या घडया घालू नयेत. उत्तरपत्रिकेवर उत्तराचे गडद केलेले फक्त एकच बर्तुळ सोडून इतर कोणत्याही प्रकारच्या खाणा-मुणा करू नयेत. प्रश्नपुस्तिका व उत्तरपत्रिकेवरील निर्देशित केलेल्या ठिकाणीच आपला रोल नंबर लिहावा.
6. Each candidate must show his/her Admit Card/Hall Ticket to Invigilator whenever demanded.	६. परीक्षा केंद्रावरील समावेशकांनी मागणी केल्यानंतर उमेदवारानी प्रवेशपत्र दाखवावे. (Admit Card/Hall Ticket)
7. No candidate should leave his / her seat without special permission of the Invigilator/Supervisor.	७. परिक्षा केंद्रा वरिल समावेशक अथवा पर्यवेक्षक यांच्या विशेष परवानगी शिवाय कोणत्याही उमेदवारास आपली जागा अथवा परिक्षा कक्ष सोडता येणार नाही.
8. Use of Electronic/Manual Calculator is prohibited	८. इलेक्ट्रॉनिक/मॅन्युअल कॅल्क्युलेटर यांचा वापर करण्यास सक्त मनाई आहे.
9. The candidates are governed by all Rules and Regulations of the examination with regard to their conduct in the Examination Hall. All cases of unfair means will be dealt with the rules & regulations of this examination.	९. उमेदवारांनी परिक्षे संबंधी लागू असणा-या सर्व नियमांचे पालन करणे बंधनकारक राहील. आचारसंहितेचा भंग केल्यास नियमानुसार कारवाई करण्यात येईल.
10. No part of Booklet and Answer Sheet shall be detached under any circumstances.	१०. परिक्षा पूर्ण होईपर्यंत कोणत्याही परिस्थितीत प्रश्नपत्रिका तसेच उत्तरपत्रिका यांची पाने वेगळी करू नयेत.

SE

- 1) What is the full form of AD, used with dates?
A. Anno Domini
B. Assistant Director
C. Acknowledgement Due
D. After Date
- 2) Which of the following planets of our solar system has least mass?
A. Neptune
B. Jupiter
C. Mars
D. Mercury
- 3) Ozone gas is present in which layer of atmosphere?
A. Stratosphere
B. Troposphere
C. Ionosphere
D. Mesosphere
- 4) Who built the Khajuraho temples?
A. Holkars
B. Scindias
C. Bundela
D. Chandela
- 5) At which of the following places is the famous Kailasha Temple located?
A. Ajanta
B. Badami
C. Chittor
D. Ellora
- 6) Which of the following is NOT a Union Territory?
A. Goa
B. Lakshadweep
C. Dadar and Nagar Haveli
D. Chandigarh
- 7) How many spokes are there in the Dharma Chakra (Ashoka Chakra) depicted on the National Flag of India?
A. 16
B. 20
C. 24
D. 32
- 8) The headquarter of RBI is situated at:
A. Delhi
B. Kolkata
C. Chennai
D. Mumbai
- 9) Thar Desert is situated in -
A. Rajasthan
B. West Bengal
C. Tamilnadu
D. Uttarakhand
- 10) Which of the following is the highest mountain peak in Maharashtra?
A. Taramati
B. Anjaneri
C. Salher
D. Kalsubai
- 11) National Rural Health Mission (NRHM) was launched in the year:
A. 2003
B. 2004
C. 2005
D. 2006
- 12) Who was called the 'Iron Man of India'?
A. Sardar Vallabhbhai Patel
B. Surendranath Bannerjee
C. Bipin Chandra Pal
D. Lala Lajpat Rai
- 13) Which sea is to the west of Maharashtra?
A. Black
B. Arabian
C. Labrador
D. Timor
- 14) Marathi Language Day is Celebrated on
A. 15th February
B. 7th February
C. 20th February
D. 27th February
- 15) The river Koyna joins the river Krishna at ———
A. Satara
B. Karad
C. Kolhapur
D. Mahabaleshwar

16) A bag contains 7 blue balls and 5 yellow balls. If two balls are selected at random, what is the probability that none is yellow?

- A. $\frac{5}{33}$
B. $\frac{5}{22}$
C. $\frac{7}{22}$
D. $\frac{7}{33}$

17) Damodar is 26 years older than his son. In four years, his age will be twice the age of his son. The present age of his son is:

- A. 16 years
B. 18 years
C. 20 years
D. 22 years

Handwritten solution for Q17:
 $\text{Son's age} = x + 4$
 $\text{Damodar's age} = x + 26 + 4$
 $x = 52$
 $5 \quad x+4$
 $9 \quad x+30$
 $x+30 = 2(x+4) =$
 $x+30 = 2x+8 \quad 3x = 22$

18) Introducing a girl, Niraj said, 'Her mother is the only daughter of my mother-in-law'. How is Niraj related to the girl?

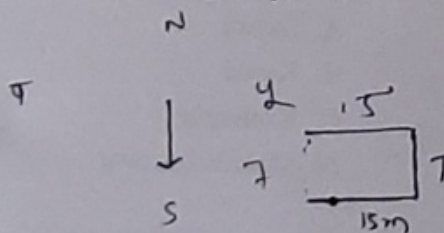
- A. Husband
B. Brother
C. Father
D. Uncle

19) Covid-19 is caused by _____

- A. Bacteria
B. Parasite
C. Virus
D. Fungus

20) Madhuri, who is facing South turns to her left and walks 15 metres, then she turns to her left and walks 7 metres, then facing west she walks 15 metres. How far is she from her original position?

- A. 7m
B. 10m
C. 5m
D. 8m



21) If Sunday falls on 30th April, what day would be on 31st May?

- A. Saturday
B. Sunday
C. Monday
D. Wednesday

22)

6	6	8
5	7	5
4	3	?
120	126	320

- A. 12
B. 8
C. 14
D. 16

23) Deepak has some hens and some goats. If the total number of animal heads is 90 and the total number of animal feet is 248, what is the total number of goats Deepak has?

- A. 32
B. 36
C. 34
D. Cannot be determined

24) In class the average age of 75 students is 7 years. If along with the class teacher, the average is 7.5 years. What is the age of teacher age?

- A. 37.5 years
B. 45 years
C. 42 years
D. 39 years

25) In a factory of 140 machine parts, 5 percent were defective. In a factory of 80 machine parts, 10 percent were defective. For the two factory combined, what percent of the machine parts were defective?

- A. 6.50%
B. 7%
C. 7.50%
D. 8%

Handwritten solution for Q25:
 $140 \times \frac{5}{100} = 7$
 $80 \times \frac{10}{100} = 8$
 $\frac{7}{220} = \frac{15}{100} = 6.8\%$

26) The correct sequence of communication is

- A. Message Sender Receiver
- B. Message Receiver Sender
- C. Sender Message Receiver
- D. Receiver Sender Message

27) AB, DE, GH, I, MN

- A. IJ
- B. HI
- C. JK
- D. None

28) Pick the odd one

- A. Bengali
- B. Marathi
- C. English
- D. Kannad

29) In a row of trees, one tree is seventh from either end of the row. How many trees are there in the row?

- A. 8
- B. 13
- C. 14
- D. 11

30) In a class of 45 students, a boy is ranked 20th. When two boys joined, his rank was dropped by one. What is his new rank from the end?

- A. 25th
- B. 26th
- C. 27th
- D. 28th

31) अशुद्ध शब्द ओळखा

- A. तथापि
- B. परंतु
- C. आणि
- D. यापैकी नाही

32) 'दुभत्या गाईच्या लाथा गोड' या म्हणीचा अर्थ खालीलपैकी कोणता?

- A. दुभत्या गाईची लाथ लागत नाही.
- B. फायदयासाठी अपमान सहन करणे.
- C. अडथळे आले तरी प्रयत्न करावा.
- D. दुभत्या गाईच्या लाथा खाणे.

33) 'अर्थ नसणे' या अर्थाचा योग्य वाकप्रचार कोणता?

- A. गाशा गुंडाळणे
- B. फुगडी घालणे
- C. वा-यावर सोडणे
- D. राम नसणे

34) 'कृपण' या शब्दाच्या विरुद्धार्थी शब्द ओळखा

- A. उदार
- B. कृतघ्न
- C. गरीब
- D. अपूर्व

35) गटात न बसणारा शब्द ओळखा?

- A. सूत
- B. भ्राता
- C. बंधू
- D. भाऊ

36) रामबाण

- A. अचूक गुणकारी
- B. रामाचा बाण
- C. थोर पुरुष
- D. राजा

37) दिलेल्या शब्दाचा समानार्थी नसलेला शब्द ओळख

- A. सर्व ✓
- B. निर्भीड
- C. पूर्ण ✓
- D. सगळा ✓

- 38) अधोरेखित शब्दांच्या विभक्तीचा अर्थ ओळखा.
 अ) तो घरातून बाहेर पडला.
 A. कर्ता
 B. कर्म
 C. अपादान
 D. संप्रदान
- 39) 'सूर्य मावळत आहे' - पूर्ण भविष्यकाळ करा.
 A. सूर्य मावळेल.
 B. सूर्य मावळत असेल.
 C. सूर्य मावळलेला असेल
 D. सूर्य मावळला.
- 40) 'अमुक झाले तर अमुक होईल' असे काल्पनिक विधान करावयाचे असेल तर भूतकाळी आणि भविष्यकाळी कोणत्या अर्थाच्या क्रियापदाची योजना करावी लागते?
 A. आज्ञार्थी
 B. संकेतार्थी
 C. प्रश्नार्थक
 D. यांपैकी नाही
- 41) तो पेरुचे फळ सावकाश खात आहे, या वाक्यातील क्रियाविशेषण कोणते?
 A. पेरुचे फळ
 B. फळ
 C. सावकाश
 D. खात आहे
- 42) अधोरेखित शब्दाचा प्रकार ओळखा. तू पण माझ्याबरोबर प्रार्थना म्हण.
 A. उभयान्वयी अव्यय
 B. शब्दयोगी अव्यय
 C. क्रियाविशेषण
 D. केवलप्रयोगी अव्यय
- 43) कर्ता - कर्म - क्रियापद यांच्या परस्परसंबंधांना म्हणतात.
 A. वाक्य
 B. शब्दसमूह
 C. कर्तरी प्रयोग
 D. प्रयोग
- 44) सावळाच रंग तुझा पावसाळी नभापरी ! (अलंकार ओळखा)
 A. श्लेष अलंकार
 B. यमक अलंकार
 C. अतिशयोक्ती अलंकार
 D. उपमा अलंकार
- 45) लहानपण देगा देवा | मुंगी साखरेचा रवा |
 ऐरावत रत्न थोर | त्यासी अंकुशाचा मार ||
 वरील कडव्यातील अलंकार ओळखा.
 A. यमक अलंकार
 B. अनुप्रास अलंकार
 C. रूपक अलंकार
 D. दृष्टांत अलंकार

- 46) "I'm sure I've met your father."
A. Verb
B. Preposition
C. Pronoun
D. Interjection
- 47) Make the adjective of the word 'occasion.'
A. occasioned
B. accusational
C. occasional
D. occasionally
- 48) Choose the correct conjunction :
She bought a car, _____ she was too young to learn to drive.
A. if
B. because
C. although
D. if not
- 49) I will sing if he _____
A. will ask me
B. asks me
C. asked me
D. has asked me
- 50) He said, "Please help me."
Choose the option with the correct indirect form of the above.
A. He pleased me to help me.
B. He requested me to help him.
C. He ordered me about helping.
D. He said I need help
- 51) Choose appropriate antonym for the word 'Gloomy'
A. Idle
B. Wise
C. Cheerful
D. Sad
- 52) Choose the correct answer from the following and fill in the blank:
A doctor who studies and treats mental illness _____
A. psychiatrist
B. psychologist
C. psychoanalyst
D. psychiatry
- 53) Give the meaning of 'To call it a day'.
A. To have a good day.
B. To work all the day.
C. To have a free day.
D. To stop doing work of the day.
- 54) Choose the correct meaning of the given phrase or idiom:
Look into—
A. to examine thoroughly
B. to watch
C. to observe
D. to follow
- 55) Which of the following word is correctly spelt?
A. administration *Administration*
B. convorsation *conservation*
C. creatyre *creature*
D. develop
- 56) Meaning of "Fly by night"
A. Night journey
B. A Bird busy in night
C. Cat's eye
D. Swindler
- 57) I _____ the apartment all day yesterday.
A. Clear
B. Washed out
C. Cleaned Up
D. None of these
- 58) Choose the word spelt correctly.
A. Substantial
B. Substantial
C. Substantial *Substantial*
D. Substendial
- 59) He competed _____ me for the prize.
A. Off
B. With
C. To
D. Off
- 60) He _____ a very good grade in the examination.
A. Earned
B. Given
C. Received
D. None of these

- 61) A simple asexual spore which develops by budding is known as
 A. Chlamydospore
 B. Blastospore
 C. Arthrospore
 D. Conidia
- 62) Who demonstrated that open tubes of broth remained free of bacteria when air was free of dust.
 A. Abbe Spallanzani
 B. John Tyndall
 C. Francisco Redi
 D. Pasteur
- 63) Salt and sugar preserve foods because they
 A. Make them acid
 B. Produce a hypotonic environment
 C. Deplete nutrients
 D. Produce a hypertonic environment
- 64) Direct microscopic count can be done with the aid of
 A. Neuberg chamber
 B. Anaerobic chamber
 C. Mineral oil
 D. Olive oil
- 65) The image obtained in a compound microscope is
 A. Real
 B. Virtual
 C. Real inverted
 D. Virtual inverted
- 66) Compound microscope was discovered by
 A. Antony von
 B. Pasteur
 C. Johnsen & Hans
 D. None of these
- 67) Autoclaving is carried at
 A. Dry heat
 B. Atmospheric pressure
 C. 1200 C
 D. All of these
- 68) Algae are rich in
 A. Carbohydrates
 B. Proteins
 C. Vitamins
 D. All of these
- 69) Temperature used for hot air oven is
 A. 1000 C for 1 hour
 B. 1200 C for 1 hour
 C. 1600 C for 1 hour
 D. 600 C for 1 hour
- 70) In the medium other than nutrients, If any substance is used in excess, that medium is
 A. Enriched medium
 B. Special medium
 C. Enriched medium
 D. None of these
- 71) The principle involved in the streak plate method is
 A. Separation
 B. Streaking
 C. Isolation
 D. Dilution
- 72) Wilson and Blair medium is used for isolation of
 A. Staphylococci
 B. Salmonella typhosa
 C. Vibrio cholerae
 D. Shigella shigae
- 73) Shigella was first isolated by
 A. Shiga
 B. Schmitz
 C. Sonnei
 D. Robert Koch
- Handwritten notes:*
 170 - 20 min
 160 - 60 min
 150 - 120 min

- 74) The orderly increase in the quantity of all of the cellular components is known as
- Reproduction
 - Growth
 - Binary fission
 - None of these
- 75) For sterilization of fermentation equipment the method followed is
- Radiation
 - Chemicals
 - Heating
 - All of these
- 76) Source of light in fluorescence microscopy is from
- Mercury lamp
 - Sunlight
 - Both a and b
 - None of these
- 77) In electron microscope source of electrons is from
- Mercury lamp
 - Tungsten metal
 - Both a and b
 - None of these
- 78) If the vectors transmit the infection mechanically they are called
- Biological vectors
 - Mechanical vectors
 - Biological reservoir
 - Both a and c
- 79) Which of the following enzyme acts as a spreading factor?
- Hyaluronidase
 - Coagulase
 - Catalase
 - DNase
- 80) A mutation that produces termination codon is
- Mis-sense mutation
 - Neutral mutation
 - Non-sense mutation
 - Reverse mutation
- 81) The resolution power of the compound microscope is
- 0.2 micron
 - 0.2 millimeter
 - 0.2 Angstrom units
 - 0.2 centimeter
- 82) Electron microscope gives magnification upto
- 100 X
 - 2000 X
 - 50,000 X
 - 2,00,000 X
- 83) The lethal dose required to kill 50% of the lab animals tested under standard called
- ID
 - LD50
 - ID50
 - MLD
- 84) Separation of a single bacterial colony is called
- Isolation
 - Separation
 - Pure culturing
 - All of these
- 85) Which of the following induces dimerisation of thymine?
- X-rays
 - U.V. rays
 - a-rays
 - None of these

- 86) The medium used in membrane filter technique was
- EMB agar
 - EMR-Vp medium
 - Lactose broth
 - Endo agar
- 87) Lysol is a
- Sterilent
 - Disinfectant
 - Antiseptic
 - Antifungal agent
- 88) Which of the following is a neutral stain?
- Picric acid
 - Giemsa
 - Neutral red
 - Malachite green
- 89) Peptone water medium is an example for
- Synthetic medium
 - Semisynthetic medium
 - Differential medium
 - None of these
- 90) The method in which the cells are frozen dehydrated is called
- Pasteurization
 - Dessication
 - Disinfection
 - Lypophilization
- 91) Thermal death time is
- Time required to kill all cells at a given temperature
 - Temperature that kills all cells in a given time
 - Time and temperature needed to kill all cells
 - All of the above
- 92) The identification of bacteria by serologic tests is based on the presence of specific antigens. Which of the following bacterial components is least likely to contain useful antigens?
- Capsule
 - Cell wall
 - Flagella
 - Ribosomes
- 93) The organism which grows best above 45°C are called
- psychrophilic
 - mesophilic
 - thermophilic
 - any of these
- 94) Lag phase is also known as
- period of initial adjustment
 - transitional period
 - generation time
 - none of these
- 95) Some organisms can use reduced inorganic compounds as electron donors and are termed as
- lithotrophs
 - phototrophs
 - chemotrophs
 - photo-organotrophs
- 96) The predominant micro-organisms in frozen foods are
- Bacteria
 - micro-coccus
 - yeast and moulds
 - none of these
- 97) The yoghurt is made from
- Lactobacillus bulgaricus
 - Streptococcus thermophiles
 - S. cremoris
 - mixed culture of (a) and (b)

97) Mycoplasmas are different from other bacteria by?

- A. Presence of chitin in cell wall
- B. Presence of Techoic acid in cell wall
- C. Presence of Lipoprotein in cell wall
- D. Absence of cell wall itself.

100) Which of the following is used for the analysis of compositional properties of DNA?

- A. Southern blotting
- B. Northern blotting
- C. PCR
- D. CHEF

98) Blotting describes the Of nucleic acids

- A. Monitoring
- B. Immobilization
- C. Racing
- D. Comparison

_____ X _____