



**Himachal Pradesh State Pollution Control Board,**  
"Him Parivesh", Phase-III, New Shimla –171009.

**Name of the Candidate:**

**Roll No. :**

**Sample Question Paper for Laboratory Assistant Examination 2015**

**Maximum Marks: 85**

**Time: 90 minutes**

Note: Only one response to be selected and answered on **OMR** sheet. Each question carries one mark. There will be negative marking for wrong answer or more than one answer for same question and half mark shall be deducted in each such question. No negative marking will be there for question left unattended.

**Physics**

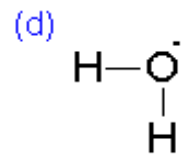
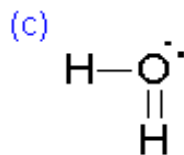
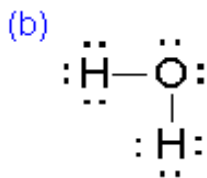
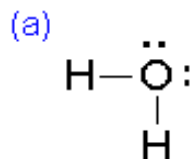
- 1) Which instrument is used to measure pressure
  - (a) Saccharimeter
  - (b) Ammeter
  - (c) Manometer
  - (d) Lactometer
- 2) What does Angstrom measure
  - (a) Quantity of liquid
  - (b) Length of light waves
  - (c) Length of cables
  - (d) Speed of ships
- 3) Light year is related to
  - (a) Energy
  - (b) Intensity
  - (c) Distance
  - (d) Speed
- 4) The unit of current is
  - (a) Ohm
  - (b) Watt
  - (c) Ampere
  - (d) None of these
- 5) The intensity of an earthquake is measured with a
  - (a) Barometer
  - (b) Hydrometer
  - (c) Polygraph
  - (d) Seismograph
- 6) The Scientist who first discovered that the earth revolves around the sun was
  - (a) Newton
  - (b) Dalton

- (c) Copernicus
  - (d) Einstein
- 7) Meteorology is the science of
- (a) Weather
  - (b) Meteors
  - (c) Metals
  - (d) Earthquakes
- 8) The velocity of light was first measured by
- (a) Einstein
  - (b) Newton
  - (c) Romer
  - (d) Galileo
- 9) The unit of energy in MKS system is
- (a) Volt
  - (b) Erg
  - (c) Ohm
  - (d) Joule
- 10) Centigrade & Fahrenheit scales give same reading at
- (a)  $-40^{\circ}$
  - (b)  $-32^{\circ}$
  - (c)  $-273^{\circ}$
  - (d)  $-100^{\circ}$

### Chemistry

- 11) Which of the following is not an atmospheric pollutant
- (a) Hydrocarbons
  - (b) CFCs
  - (c)  $\text{CO}_2$
  - (d) CO
- 12) Which element has the highest first ionization energy?
- A. Sodium
  - B. Aluminum
  - C. Calcium
  - D. Phosphorus
- 13) When alpha particles are used to bombard gold foil, most of the alpha particles pass through undeflected. This result indicates that most of the volume of a gold atom consists of \_\_\_\_.
- A. deuterons
  - B. neutrons
  - C. protons
  - D. unoccupied space
- 14) A neutron has approximately the same mass as a
- A. an alpha particle
  - B. a beta particle
  - C. an electron
  - D. a proton
- 15) What is the mass number of an atom which contains 28 protons, 28 electrons, and 34 neutrons?
- A. 28
  - B. 56
  - C. 62

- D. 90
- 16) Which element is present in all organic compounds?
- A. carbon
  - B. nitrogen
  - C. oxygen
  - D. phosphorous
- 17) Which statement explains why the element carbon forms so many compounds?
- A. Carbon atoms combine readily with oxygen.
  - B. Carbon atoms have very high electronegativity.
  - C. Carbon readily forms ionic bonds with other carbon atoms.
  - D. Carbon readily forms covalent bonds with other carbon atoms.
- 18) What is the maximum number of covalent bonds than an atom of carbon can form?
- A. 1
  - B. 2
  - C. 3
  - D. 4
- 19) During fractional distillation, hydrocarbons are separated according to their
- A. boiling points
  - B. melting points
  - C. triple points
  - D. saturation points
- 20) Which substance cannot be decomposed into simpler substances?
- A. ammonia
  - B. aluminum
  - C. methane
  - D. methanol
- 21) Which statement describes a chemical property?
- A. Its crystals are a metallic gray.
  - B. It dissolves in alcohol.
  - C. It forms a violet-colored gas.
  - D. It reacts with hydrogen to form a gas.
- 22) How many valence electrons does an oxygen atom have?
- A. 2
  - B. 6
  - C. 8
  - D. 16
- 23) The identity of an element is determined by...
- A. The number of its protons.
  - B. The number of its neutrons.
  - C. The number of its electrons.
  - D. Its atomic mass.
- 24) Which of the following is the correct name for  $\text{NaHCO}_3$ ?
- A. sodium hydrogen carbonate
  - B. sodium acetate
  - C. nitrogen hydrogen carbonate
  - D. sodium hydrogen carbon trioxide
- 25) Which of the following is the correct electron-dot formula for water?



26) What is the oxidation number of chromium in the ionic compound  $\text{Na}_2\text{Cr}_2\text{O}_7$ ?

- A. 2
- B. 6
- C. 7
- D. 12

27) The nucleus of an atom consists of

- A. electrons and neutrons
- B. electrons and protons
- C. protons and neutrons
- D. All of the above

28) What is the molecular geometry for ammonia ( $\text{NH}_3$ )?

- A. saw horse
- B. trigonal planar
- C. tetrahedral
- D. pyramidal

29) What is the hybridization of the sulfur atom in  $\text{SF}_4$ ?

- A.  $\text{sp}^2$
- B.  $\text{sp}^3$
- C.  $\text{sp}^3\text{d}$
- D.  $\text{sp}^3\text{d}^2$

30) The number of moles of solute present in 1 kg of a solvent is called its

- A. molality
- B. molarity
- C. normality
- D. formality

### General Knowledge

#### H.P.

31) Bandli sanctuary located in

- (a) Una
- (b) Mandi
- (c) Kullu
- (d) None

32) Which is birth place of Sh. Virbhadr Singh, Chief Minister of Himachal Pradesh?

- (a) Hamirpur
- (b) Sarahan
- (c) Mehatpur
- (d) Samirpur

33) Shri Naina Devi Ji is a Sub-Tehsil of which district?

- (a) Bilaspur
- (b) Una
- (c) Shimla

(d) None

### India

34) When did India enter into space age by launching the satellite 'Aryabhata'?

- (a) 1966
- (b) 1932
- (c) 1975
- (d) 1990

### World GK

35) In cricket, a run taken when the ball passes the batsman without touching his bat or body is called

- (a) Leg bye
- (b) Bye
- (c) Bosie
- (d) Drive

### Current Affairs

36) Who is the Chief Justice of Himachal Pradesh High Court

- (a) Justice Rajiv Sharma
- (b) Justice Mansoor Ahmad Mir
- (c) Justice Kurian Joseph
- (d) Justice Vinod Gupta

37) Where is the 2<sup>nd</sup> head quarter of Legislative Assembly of Himachal Pradesh located

- (a) Shimla
- (b) Kullu
- (c) Dharamshala
- (d) Hamirpur

38) In which country recently Commonwealth Games held

- (a) Spain
- (b) Australia
- (c) Scotland
- (d) South Africa

39) Who will be the chief guest of Republic Day 2015

- (a) David Cameron
- (b) Barak Obama
- (c) Xi Jinping
- (d) Girija Prasad Koirala

40) In which country recently the SAARC Summit held

- (e) Pakistan
- (f) Bhutan
- (g) Nepal
- (h) India

**EDS**

41) Which is the outermost planet in the solar system?

- (a) Mercury
- (b) Pluto
- (c) Neptune
- (d) Uranus

42) Deficiency of Vitamin-A results in

- (a) Night Blindness
- (b) Rickets
- (c) Scurvy
- (d) Hair fall

43) Blood is cleaned by

- (a) Lungs
- (b) Liver
- (c) Heart
- (d) Kidneys

44) Sanitation is related to disease as.....is to accident

- (a) Doctor
- (b) Hospital
- (c) Bandage
- (d) Cleanliness
- (e) Precaution

45) CNG stands for

- (a) Converted Natural Gas
- (b) Conduced Natural Gas
- (c) Conducted Natural Gas
- (d) Compressed Natural Gas

**LR**

46) Look at this series: 36, 34, 30, 28, 24,..... What number should come next?

- (a) 20
- (b) 22
- (c) 23
- (d) 26

47) Find the odd one out

- (a) Debit
- (b) Deposit
- (c) Deduction
- (d) Withdrawal

48) Bank is related to Money in the same way as Transport is related

- (a) Traffic
- (b) Goods
- (c) Speed
- (d) Road

49) Which of the following numbers in this row appears a second time nearest to the beginning

4 2 3 1 5 6 3 4 6 4 7 3 2 1 5 8 6 9

- (a) 1
- (b) 3
- (c) 5
- (d) 2
- (e) 6

50) Fill in the blank with the most appropriate word from amongst those given below.

A young man is ..... wiser than his father.

- (a) never
- (b) rarely
- (c) much
- (d) usually
- (e) always

### English

**Directions:** In this section, you have to spot errors in sentence. Read each sentence to find out whether there is an error in any underline part. Errors, if any, are only in the underline parts. No sentence has more than one error. Letters (a), (b) and (c) have been placed beneath the underline parts for their identification. When you find an error in any one of underline parts, indicate your response on the separate Answer Sheet in the relevant column. You may feel that there is no error in the sentence. In that case, letter (d) will signify a 'No error' response.

51) The pile of books are missing. No error  
(a) (b) (c) (d)

52) Either he or I are wrong. No error  
(a) (b) (c) (d)

53) Please tell to him to do his work. No error  
(a) (b) (c) (d)

54) Though he is good he is mischievous. No error  
(a) (b) (c) (d)

**Directions:** Look at the underline part of each sentence. Below each sentence three possible substitutions are given for the underline part. If one of them, i.e., (a), (b) or (c) is better than the underline part, indicate your response on the Answer Sheet against the corresponding letter. If none of the substitutions improve the sentence, indicate (d) as your response on Answer Sheet.

55) I don't remember exactly when did I go to Shimla last year.

- (a) when I did go
- (b) when I was going
- (c) when I went
- (d) No Improvement

56) Even he worked hard, he failed in the examination

- (a) Since
- (b) Although

- (c) For
- (d) No Improvement

**Directions:** Each question in this section consists of a word printed in capital letters followed by word as (a), (b), (c) and (d). Choose from these the word that has most nearly the meaning **opposite** to the word in capital letter and indicate your response in the Answer Sheet accordingly.

57) FRAIL

- (a) strong
- (b) big
- (c) old
- (d) weak

58) INDIGENOUS

- (a) genuine
- (b) foreign
- (c) indigent
- (d) indignant

### COMPREHENSION

**Directions:** Read the following short passages. After each passage, you will find several questions based on what is stated or implied in the passages. Answer the questions that follow each passage.

#### PASSAGE-I

In a free country, the man who reaches the position of leader is usually one of outstanding character and ability. Moreover, it is usually possible to foresee that he will reach such a position, since early in life one can see his qualities of character. But this is not always true in the case of a dictator often he reaches his position of power through chance, very often through the unhappy state of his country. It is possible that Hitler would never have become the leader of Germany if that country had not been driven to despair.

59) In a free country, one who becomes a leader

- (a) must be of outstanding character and ability
- (b) must show qualities of character from an early age
- (c) is generally of a remarkable character and ability
- (d) must see that his country is free from despair

60) Hitler became a leader because

- (a) he exhibited leadership qualities
- (b) Germany was a free country
- (c) Germany was in despair
- (d) Germans wanted a dictator



## हिन्दी

61) 'दाल में काला है।' 'काला' व्याकरण की दृष्टि से क्या है ?

- 1 संज्ञा                      2 सर्वनाम                      3 विशेषण                      4 क्रिया विशेषण

62) गड़ढा खोदकर मजदूर चले गए। मिश्र वाक्य बनाओ।

- 1 मजदूरों ने गड़ढा खोदा और वे चले गए।  
2 जब मजदूरों ने गड़ढा खोद लिया तब वे चले गए।  
3 मजदूरों द्वारा गड़ढा खोदने पर वे चले गए।  
4 मजदूर गड़ढा खोदकर घर चले गए।

63) "जो कम जानता है" इस वाक्यांश के लिए एक शब्द बताइये—

- 1 मंद                      2 मूर्ख                      3 मंदबुद्धि                      4 अल्पज्ञ

64) निराकार शब्द का विलोम है

- 1 आकार  
2 साकार  
3 प्रकार  
4 विकार

65) अजेय शब्द का विलोम है

- 1 विजित  
2 जेय  
3 परास्त  
4 पराजित

## **Computer Knowledge**

66) Which of the following is not a valid address in EXCEL ?

- a) A3  
b) \$Ag  
c) \$A\$3  
d) \$AB\$

67) Range could be shown in EXCEL as

- a) A3::B5  
b) A g - 8 5  
c) A3:B5  
d) AB:BA

68) You can sort data in Excel on '

- (1) Rows  
(2) Columns  
(3) Both (1) and (2)

- (4) None of the above
- 69) Absolute value of number is calculated using
- a) ABS( )
  - b) ABSOLUTE[0]
  - c) A-CELL( )
  - d) A-N( )
- 70) \_\_\_\_\_ is pressed in order to copy a cell.
- a) CTRL+C
  - b) CTRL+S
  - c) CTRL+P
  - d) None of the above
- 71) Cut; Copy and Paste option are part of menu.
- a) File
  - b) Edit
  - c) View
  - d) Format
- 72) You can quickly insert a page break in MS Word by using keys
- a) CTRL+ENTER
  - b) ALT+ENTER
  - c) ENTER
  - d) CTRL+FI
- 73) Which of the following device is required for internet connection?
- a) Printer
  - b) Modem
  - c) Telephone line
  - d) Both 2 & 3
- 74) The difference between Save and Save As is
- a) not worth mentioning
  - b) one is Ctrl+S, other is Ctrl+A
  - c) Save lets you save file with same name and location and Save As lets you change both
  - d) Save lets you change the file name; Save As lets you change the location
- 75) http stands for
- a) Hyper text markup language
  - b) Hyper text markup language
  - c) High text makeup language
  - d) None of the Above
- 76) WAN stands for
- a) Wide Area Network
  - b) West Areal Network
  - c) Where Area Network
  - d) None of the Above
- 77) DOS is an example of
- a. Word Processor
  - b. Spreadsheet
  - c. Operating System
  - d. Presentation Package
- 78) Which of the following is not application software?
- a) Operating System
  - b) Notepad
  - c) Text Editor
  - d) Word Processor

- 79) A computer which links several PCs together in a network is called
- a) Mini computer
  - b) Server
  - c) Client
  - d) Mainframe
- 80) Window 7 is a
- a) Hardware
  - b) System Program
  - c) Operating System
  - d) Application Software
- 81) Mail Merge is used to create
- a) Document
  - b) Spreadsheet ,
  - c) PowerPoint
  - d) Table
- 82) In Word, the mailing list is known as the \_\_\_\_\_.
- a) Data sheet
  - b) Source
  - c) Data source
  - d) Sheet
- 83) Which of the following is not one of the three 'Mail Merge Helper' steps?
- a) Merge the two files
  - b) Create the main document
  - c) Set the mailing list parameters
  - d) Create the data source
- 84) It is possible to \_\_\_\_\_ a data source before performing a merge.
- a) Create
  - b) Modify
  - c) Sort
  - d) All of the above
- 85) Screen background is known as
- a) Application
  - b) Window
  - c) Desktop
  - d) Frame