

BABA FARID UNIVERSITY OF HEALTH SCIENCES, FARIDKOT

MGPS TECH.
(Under DRME, Govt. of Punjab)

QUESTION BOOKLET NO.

IMPRESSION OF THE CANDIDATE

OMR ANSWER SHEET NO.

ROLL NO:

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FULL SIGNATURE OF THE CANDIDATE

FULL SIGNATURE OF THE INVIGILATOR

FULL SIGNATURE OF THE OBSERVER

Time Allowed: 1.00 Hours (11.00 AM to 12.00 noon)

Maximum Marks: 50

1. Use **BLACK FINE TIP BALL PEN** only. Use of pencil is not allowed.
2. Write your Roll number on the OMR answer-sheet and also on the question-booklet only in the space provided for the purpose and at no other place in the question booklets and Answer-sheet
3. Enter the Question Booklet Set and Number on the OMR Answer-sheet and also darken the corresponding bubbles with **BLACK FINE TIP BALL PEN**.
4. Do not put any marks anywhere in the Question booklet /on the OMR Answer-sheet.
5. **There are 50 objective type questions in all of 1 Mark each.** Before attempting the questions, check that the Question-booklet is complete. In case any question/part of question or page is missing, inform the Centre Superintendent within 5 minutes of the start of the examination. After that no claim will be entertained.
6. **Each question is followed by four alternative responses listed as A), B), C) and D) out of which only one is correct / most correct. In case, all the ovals are left blank, there will be deduction of marks @ 0.25 mark for each such unattempted question. Fifth oval 'E' (introduced for security purpose) is to be darkened in case you do not want to attempt the question to avoid negative marking.**
7. To open the question booklet, remove the seal gently when asked to do so. Handover the OMR Answer-sheet to the officer on duty on the completion of the time before you leave the examination hall.
8. **The candidates are permitted to carry his/her question booklet after completion of the examination but OMR Sheets are compulsory required to be deposited with the invigilator.**
9. A candidate who create disturbance of any kind or changes his/her seat or is found in possession of any paper possibility of any assistance to him/her or unfair means will be expelled from the examination by the Centre superintendent/Observer, whose decision shall be final. ("Expulsion" for this purpose would mean cancellation of the entire examination of the candidate).
10. **THE CANDIDATES ARE NOT PERMITTED TO CARRY ANY TELECOMMUNICATION EQUIPMENT SUCH AS WATCH, CELLULAR PHONE, WIRELESS SET, SCANNER ETC. INSIDE THE EXAMINATION HALL.**
11. For rough work, use only the blank space of the Question booklet.
12. The candidates will not be allowed to leave the examination hall during the examination.
13. Borrowing any material is not allowed.
14. The answer-sheet is designed for Computer evaluation. If the instructions are not followed properly, the candidate alone shall be responsible for the resultant loss.
15. Smoking/Refreshment shall not be allowed in the Entrance Test Centre/Hall.
16. Male candidates shall affix their Left Thumb Impression (LTI) while Female candidates shall affix Right Thumb Impression (RTI) at the prescribed place on the OMR answer sheet, Question Booklet and attendance sheet. The Centre superintendent shall also obtain and retain it for record.
17. The candidate must fill both the question booklet number and OMR answer sheet number on the attendance sheet.
18. No candidate shall be allowed to leave the centre before **12.00 noon**.

- 1) For producing medical Oxygen in gaseous form
 - a) Cryogenic Technology
 - b) PSA Adsorption Technology
 - c) PSA Absorption Technology
 - d) None of these
- 2) Which is the important gas used by human beings for breathing?
 - a) Nitrogen
 - b) Carbon dioxide
 - c) Oxygen
 - d) Carbon monoxide
- 3) Air compressor used in PSA Oxygen Plant is
 - a) Centrifugal Compressor
 - b) Helical screw Compressor
 - c) Reciprocating Compressor
 - d) Rotary Vane Compressor
- 4) General gas equation is _____.
 - a) $PV=nRT$
 - b) $PV=mRT$
 - c) $PVn =C$
 - d) $Cp-Cv=R/J$
- 5) Following type is a positive displacement compressor
 - a) Screw
 - b) Diaphragm
 - c) Centrifugal
 - d) All of the above
- 6) Compressor are similar to
 - a) Gears
 - b) Flywheel
 - c) Pumps
 - d) Turbine
- 7) A compressor increase the _____ of a gas by _____ its _____.
 - a) Pressure, reducing, volume
 - b) Pressure, increasing, volume
 - c) Pressure, reducing, Temperature
 - d) Pressure, increasing, Temperature
- 8) Rotary compressor is best suited for
 - a) Large quantity of air at high pressure.
 - b) Small quantity of air at high pressure.
 - c) Small quantity of air at low pressure.
 - d) Large quantity of air at low pressure.
- 9) Reciprocating air compressor is best suited for
 - a) Large quantity of air at high pressure.
 - b) Small quantity of air at high pressure.
 - c) Small quantity of air at low pressure.
 - d) Large quantity of air at low pressure.
- 10) What is the % of Oxygen in Atmospheric Air?
 - a) 78%
 - b) 21%
 - c) 3%
 - d) 40%
- 11) A machine used to raise the pressure of air is called :
 - a) Gas turbine
 - b) IC Engine
 - c) Compressor
 - d) Air Motor
- 12) Maximum density in these gases :
 - a) N
 - b) Ar
 - c) O
 - d) None of these
- 13) What is the use of oxygen booster.
 - a) To clean the air
 - b) To creating pressure for bottling purpose.
 - c) To suck the air
 - d) To Check the oxygen qualities.
- 14) The starting time of oxygen PSA plant is _____.
 - a) 30min
 - b) 20min
 - c) 5min
 - d) 40min
- 15) What is the life of zeolite?
 - a) 1year
 - b) 2year.
 - c) 10-year
 - d) 3 to 5year.
- 16) What is function of air dryer?
 - a) To cool the air.
 - b) To remove the particle from air.
 - c) A and B both
 - d) To cool the PSA unit.

17) Pressure =

- a) Area / force on which it acts
- b) force / area on which it acts
- c) Volume / force on which it acts
- d) Force / volume on which it acts

18) Name the device which is used to measure the hotness or coldness of an object.

- a) Picometer
- b) Barometer
- c) Manometer
- d) Thermometer

19) What is the normal temperature of a healthy person?

- a) 37°C
- b) 37°F
- c) 37 K
- d) None of these

20) Breathing rate in human beings in normal condition is

- a) 12-15 times in a minute
- b) 15-18 times in a minute
- c) 18-22 times in a minute
- d) 22-25 times in a minute

21) The basic function of air dryer in a compressor is:

- a) Prevent dust from entering compressor
- b) Storage and smoothening pulsating air output
- c) Reduce the temperature of the air before it enters the next state to increase efficiency
- d) To remove remaining traces of moisture after cooler

22) What is the % of Oxygen in Atmospheric Air?

- a) 78%
- b) 21%
- c) 3%
- d) 40%

23) A machine used to raise the pressure of air is called :

- a) Gas turbine
- b) IC Engine
- c) Compressor
- d) Air Motor

24) As you increase in altitude, the number of air molecules will _____.

- a) Decrease
- b) Increase
- c) Remain the same
- d) None of the above

25) As elevation increases, air pressure will _____.

- a) Increases
- b) Decreases
- c) Remains same
- d) NOTA (None of the above)

26) The condensation point of Oxygen gas is _____.

- a) -113 OC
- b) -133 OC
- c) -183 OC
- d) -143 OC

27) How does the liquid gets separated in freeze dryer?

- a) Boiling
- b) Distillation
- c) Freezing and crystallization
- d) Evaporation

28) What is the function of the air dryer?

- a) Removes dirt
- b) Removes moisture
- c) Controls the rate of flow

29) The compressed air flows to the actuator through.

- a) Pipes and valves
- b) Shafts
- c) Motors
- d) Flow control valve

30) The temperature of air recorded by a thermometer, when it is not affected by the moisture present in the air, is called

- a) Wet bulb temperature
- b) Dry bulb temperature
- c) Dew point temperature
- d) None of these

- 31) What is the property of Lithium based Zeolite?
 a) It has low temperature range
 b) It has high adsorption even at low pressure
 c) It can not adsorb at low pressure
 d) It has small pore size
- 32) Which type of system has highest degree of Oxygen purity?
 a) Cryogenic
 b) Adsorption
 c) Air separation
 d) Membrane
- 33) What reduces the nitrogen holding capacity of the adsorber?
 a) Low pressure
 b) High temperature
 c) A & B
 d) Neither A nor B
- 34) What is the property of Molecule sieves materials?
 a) Smooth surface
 b) Hard surface
 c) Porous
 d) Non-porous
- 35) What is the pressure at which Vacuum Swing Adsorption takes place?
 a) Negative pressure
 b) Ambient pressure
 c) High pressure
 d) Medium temperature
- 36) .How much Oxygen a COVID – 19 Patient needs?
 a) Depending on the severity of their illness
 b) Depending on the PSA Plant Capacity
 c) A & B
 d) None of the above
- 37) What is the formula of Density _____.
 a) Density / Volume
 b) Density / Mass
 c) Mass/ Volume
 d) None of the above
- 38) Medical Oxygen Plant can generate Oxygen with purity up to _____ % .
 a) 100
 b) 99.5
 c) 90.5
 d) 50.5
- 39) Liquid Oxygen has a _____ colour?
 a) Red
 b) Pale Blue
 c) Black
 d) Green
- 40) .Large group of minerals consisting of hydrated aluminosilicates of sodium, potassium, calcium, and barium are known as?
 a) Silica
 b) Zeolite
 c) Clay
 d) Ceramic
- 41) The composition mixer of gases 21% oxygen, 78% Nitrogen, 0.9% argon and 0.1% other gases is Called _____
 a) Carbon air
 b) Compressed air
 c) Atmospheric air
 d) None of the above
- 42) The purpose of flow meter is _____
 a) To check the voltage
 b) To check temperature
 c) To check the flow of the gases.
 d) None of the above
- 43) The valve used for safety to protect oxygen tanks when the pressure of gases reach more than the Capacity is _____
 a) Needle valve
 b) Relief valve
 c) Globe Valve
 d) Check valve
- 44) The Pressure gauge is used for _____
 a) Checking temperature of gases
 b) Checking the pressure of the gases
 c) Checking time duration of the adsorption
 d) None of the above
- 45) The valve which ensures the product gas does not flow back is _____
 a) Gate Valve
 b) Globe valve
 c) Check Valve
 d) None of the above

46) Type of compressor used in Oxygen Plant?

- a) Low pressure Compressor Less than 10 bar
- b) Medium pressure Compressor between 10 bar to 70 bar
- c) High Pressure Compressor Greater than 70 bar
- d) All of the above

47) Full form of LPM related to oxygen plant?

- a) Liter per Minute
- b) loss per minute
- c) liquid per minute
- d) None of the above

48) What is the name of Pressure measuring instrument?

- a) Thermometer
- b) Nanometer
- c) Barometer
- d) Ammeter

49) Unit of power?

- a) Watt
- b) Ampere
- c) meter
- d) Pascals

50) 1 Horse Power is equal to?

- a) 746 watt
- b) 786 watt
- c) 800 watt
- d) 736 watt