

VITHALBHAI PATEL & RAJRATNA P.T. PATEL SCIENCE COLLEGE
VALLABHI VIDHYA NAGAR
CHEMICAL PROCESS PRINCIPALES & ENGINEERING MATERIALS

S.Y. B.Sc. SEM: III

INTERNAL TEST

DATE: 5/10/2019

SUB: INDUSTRIAL CHEMISTRY

TIME: 3:00 pm to 4:10 pm

SUB CODE: US03CICH021

MARKS: 25

Q.1 Multiple choice question.

[05]

1) For expressing trace amount of impurities in the system _____ unit is preferable.

(a) Percentag

(b) parts per million (ppm)

(c) Molarity.

(d) Normality.

2) The capacity of an object to do work is.....

(a) Work.

(b) Energy.

(c) Heat.

(d) Force.

3) Combustion reaction are always

(a) Exothermic .

(b) Endothermic.

(c) Bond formulation.

(d) None of these.

4) Material science refers particular to _____

(a) Physical science

(c) Polymer science

(b) Chemical science

(d) All of above

5) Common glass, is called:

(a). Soda glass

(b). flint glass

(c). hard glass

(d). Pyrex glass.

Q2. Prove that for gaseous mixture Pressure % = Volume % = Mole %.

[05]

OR

Q2. Write a short note on purge operation.

[05]

Q3. Differentiate between Physical Adsorption and Chemical Adsorption.

[05]

OR

Q3. The dry bulb temperature and wet bulb temperature of air were found to be 29°C and 18°C respectively. The barometer reading was 750mmHg. Calculate

[05]

i) Absolute Humidity

ii) Molal Humidity

iii) % Relative saturation.

iv) Humid Volume

v) Humid Heat.

Vapor pressure at 29°C = 30 mm Hg

Vapor pressure at 18°C = 15.5 mm Hg.

Q4. How engineering materials are classified? Explain.

[05]

OR

Q4. write a note on (a) silica bricks (b) Fire bricks.

[05]

Q5. Write physical properties of metals.

OR

Q5. Write about types of cement.

[05]

