B.Pharmacy/Pharmaceutical Analysis -VI/ 2015 pattern

Item Text	Option Text 1	Option Text 2	Option Text 3	Option Text 4
What is the spin quantum number of a proton?	Three upon two	Five upon two	One upon two	Seven upon two
What should the spin quantum number (I) of a nuclei be if it has to exhibit the NMR phenomenon?	I > 0	I < 0	I = 0	Neither 1 and 2
If the nuclei exhibits spin quantum number (I) more than 0 it is called a	Non-magnetic nuclei	Magnetic nuclei	Paramagnetic nuclei	Diamagnetic nuclei
The number of magnetic quantum states that a nuclei can exhibit is given by the formula	I + 1	I -1	2I + 1	2I -1
The relationship between the precessional frequency of a nuclei and the external magnetic field in which it is placed is	Inversely proportional	Directly proportional	Independent	No relationship
Nuclear magnetic resonance technique is used for structural elucidation.	Yes	No		
Which of the following nucleus is NMR active?	12C	16O	14N	13C
Concerning nuclear spin (***I***), which of the following is not true?	Spin is due to rotation of the nucleus about its axis.	Protons have spin, but neutrons do not.	Spin can only have integer or half-integer values.	Another name for spin is "precession".
Which of the following nucleus is NMR active?	12C	16O	14N	1H
Nuclear magnetic resonance (NMR) deals with magnetic properties of certain atomic nuclei	No	Yes		
Whether the supercritical fluid acts more like a gas or liquid will depend on	Pressure and temperature	Density and temperature	Viscosity and pressure	Pressure and density
As compared to liquids, densities and viscosities of supercritical fluid are	Higher	In-between	Lower	Medium
Which detector cannot be used in supercritical fluid chromatography?	GC detector	HPLC detector	Thermal detector	Both 1 and 2
Density characteristic of a supercritical fluid is between that of	Gas and solid	Gas and liquid	Liquid and solid	Liquid and supercritical fluid
Which important characteristic gives supercritical fluids the property to be faster carriers for analytical applications?	Density	Mobility	Diffusivity	Viscosity

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In chromatography, which of the following can the mobile phase be made of?	Solid or liquid	Liquid or gas	Gas only	Liquid only
Which of the following cannot be used as adsorbent in column adsorption chromatography?	Magnesium oxide	Silica gel	Activated alumina	Potassium permanganate
In Thin layer chromatography, the stationary phase and the mobile phase is made up of respectively	Solid, liquid	Liquid, liquid	Liquid, gas	Solid, gas
In a chromatography, when the solvent is forced down the column by positive air pressure, it is called as	Supercritical fluid chromatography	Flash chromatography	Gel permeation chromatography	Ion exchange chromatography
The correct order of following steps in flash chromatographic experiment is a)Load the sample onto the silica gel column b)Elute the column c)Solvating the Silica Gel Column d) Analyze the fractions	a-b-c-d	c-a-b-d	b-c-d-a	d-c-b-a