

Code No: 56075

Set No. 1

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

III B.Tech. II Sem., II Mid-Term Examinations, April – 2014

ANALYTICAL INSTRUMENTATION

Objective Exam

Name: _____ Hall Ticket No.

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I Choose the correct alternative:

1. Atomic Absorption Spectroscopy is used in _____ []
A) Clinical analysis B) Pharmaceuticals C) water analysis D) all
2. The heart of spectrometer is _____ []
A) Detector B) Ion source C) Mass analyzer D) GM tube
3. In GM counter the tube is filled with _____ []
A) Hydrogen B) Neon C) Argon D) Nitrogen
4. The most common spectrometers are used in _____ region []
A) IR B) UV C) Visible D) C and D
5. The absorption of double beam spectrometer is obtained by the output ____ []
A) $E_0 = K \log I/I_0$ B) $E_0 = K \log I_0/I$ C) $E_0 = C \log I/I_0$ D) None
6. _____ is the application of ESR []
A) Study of free radicals B) Investigation of molecules in the triple state
C) Study of inorganic components D) All of the above
7. A Mass spectrometer consists of ____ []
A) an ion source B) a mass analyzer C) a detector D) All of the above
8. A potential of ____ to ____ volts is applied to anode of GM tube []
A) 800-2500 B) 600-1000 C) 100-1000 D) 0-100
9. _____ is the technology for studying materials with unpaired electrons []
A) NMR B) ESR C) Both A and B D) None
10. APC is combination of mechanism of _____ []
A) GM tube & Mass analyzer B) Mass analyzer & Ionization chamber
C) GM tube & Ionization chamber D) Ionizer & Mass analyzer

Cont.....2

II Fill in the blanks

11. Visible spectro photometer typically measures in the visible region of the _____
12. Atomic absorption spectrometry can be used to determine over _____ elements
13. Time domain NMR spectrometers operates at _____ to _____ Hz.
14. Solid state detector also called as _____
15. GM counter was invented by _____ and _____
16. The outer chamber wall in ionization chamber acts as a _____
17. The _____ is the part of the mass spectrometer that ionizes the material under analysis.
18. The rotation of the nuclear axis around the direction of the external field is called _____
19. Absorption filters give _____ degree of monochromaticity than the interference filters
20. In flame emission spectroscopy the source of excitation is _____

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Set No. 2

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ANALYTICAL INSTRUMENTATION

Objective Exam

Name: _____ Hall Ticket No.

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I Choose the correct alternative:

1. The most common spectrometers are used in _____ region []
A) IR B) UV C) Visible D) C and D
2. The absorption of double beam spectrometer is obtained by the output ____ []
A) $E_0 = K \log I/I_0$ B) $E_0 = K \log I_0/I$ C) $E_0 = C \log I/I_0$ D) None
3. _____ is the application of ESR []
A) Study of free radicals B) Investigation of molecules in the triple state
C) Study of inorganic components D) All of the above
4. A Mass spectrometer consists of ____ []
A) an ion source B) a mass analyzer C) a detector D) All of the above
5. A potential of ____ to ____ volts is applied to anode of GM tube []
A) 800-2500 B) 600-1000 C) 100-1000 D) 0-100
6. _____ is the technology for studying materials with unpaired electrons []
A) NMR B) ESR C) Both A and B D) None
7. APC is combination of mechanism of ____ []
A) GM tube & Mass analyzer B) Mass analyzer & Ionization chamber
C) GM tube & Ionization chamber D) Ionizer & Mass analyzer
8. Atomic Absorption Spectroscopy is used in []
A) Clinical analysis B) Pharmaceuticals C) water analysis D) all
9. The heart of spectrometer is ____ []
A) Detector B) Ion source C) Mass analyzer D) GM tube
10. In GM counter the tube is filled with ____ []
A) Hydrogen B) Neon C) Argon D) Nitrogen

Cont.....2

II Fill in the blanks

11. Solid state detector also called as _____
12. GM counter was invented by _____ and _____
13. The outer chamber wall in ionization chamber acts as a _____
14. The _____ is the part of the mass spectrometer that ionizes the material under analysis.
15. The rotation of the nuclear axis around the direction of the external field is called _____
16. Absorption filters give _____ degree of monochromaticity than the interference filters
17. In flame emission spectroscopy the source of excitation is _____
18. Visible spectro photometer typically measures in the visible region of the _____
19. Atomic absorption spectrometry can be used to determine over _____ elements
20. Time domain NMR spectrometers operates at _____ to _____ Hz.

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Set No. 3

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

III B.Tech. II Sem., II Mid-Term Examinations, April – 2014

ANALYTICAL INSTRUMENTATION

Objective Exam

Name: _____ Hall Ticket No.

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I Choose the correct alternative:

1. _____ is the application of ESR []
A) Study of free radicals B) Investigation of molecules in the triple state
C) Study of inorganic components D) All of the above
2. A Mass spectrometer consists of____ []
A) an ion source B) a mass analyzer C) a detector D) All of the above
3. A potential of ____ to ____ volts is applied to anode of GM tube []
A) 800-2500 B) 600-1000 C) 100-1000 D) 0-100
4. _____ is the technology for studying materials with unpaired electrons []
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5. APC is combination of mechanism of_____ []
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9. The most common spectrometers are used in _____ region []
A) IR B) UV C) Visible D) C and D
10. The absorption of double beam spectrometer is obtained by the output ____ []
A) $E_0 = K \log I/I_0$ B) $E_0 = K \log I_0/I$ C) $E_0 = C \log I/I_0$ D) None

Cont.....2

II Fill in the blanks

11. The outer chamber wall in ionization chamber acts as a _____
12. The _____ is the part of the mass spectrometer that ionizes the material under analysis.
13. The rotation of the nuclear axis around the direction of the external field is called _____
14. Absorption filters give _____ degree of monochromaticity than the interference filters
15. In flame emission spectroscopy the source of excitation is _____
16. Visible spectro photometer typically measures in the visible region of the _____
17. Atomic absorption spectrometry can be used to determine over _____ elements
18. Time domain NMR spectrometers operates at _____ to _____ Hz.
19. Solid state detector also called as _____
20. GM counter was invented by _____ and _____

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II Fill in the blanks

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12. Absorption filters give _____ degree of monochromaticity than the interference filters
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