PP SAVANI UNIVERSITY

Fifth Semester of B.Sc. Examination

Dec-Jan-2020-21

SSCH3090– Organic Chemistry VII

1.01.2021, Friday | Time: 10:00 AM -12:30PM | Maximum Marks: 60

Section-A (Total Marks - 20)

Q.1 Objectives (20 MCQ Compulsory-20 mark each) **(20)**

1 In photochemical reactions, absorption of ____ radiations takes place?
- **A** visible and x-rays
- **B** radio
- **C** only visible
- **D** ultraviolet and visible

2 Static Quenching is due to
- **A** Hydrogenated
- **B** Complex formation
- **C** Neutral reaction
- **D** All of the above

3 Which compound shows fluorescence?
- **A** Saturated compound
- **B** Unsaturated molecules
- **C** A and B
- **D** None of this

4 Visible light's wavelength range between?
- **A** 0.39 – 0.77 nm
- **B** 0.39 – 0.77 cm
- **C** 0.39 – 0.77 mm
- **D** 0.39 – 0.77 μm

5 Which is not the form of light that can initiate a photochemical?
- **A** UV light
- **B** visible light
- **C** IR light
- **D** X-ray light

6 Which quenching can be used for molecular motors?
- **A** Exciplex
- **B** Dynamic Quenching
- **C** Static Quenching
- **D** Fluorescence Quenching

7 Number of carbon atom in Sesquiterpenes?
- **A** 10
- **B** 15
- **C** 20
- **D** 30

8 Which structure is that of isoprene?
- **A** $H_2C=C(CH_3)-CH=CH_2$
- **B** $CH_3-CH(CH_3)-CH=CH_2$
- **C** $H_2C=CH-CH_2-CH=CH_2$
- **D** $CH_3-CH=CH-CH=CH_2$

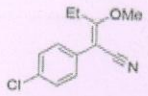
9 Number of isoprene units in Carotenoids?
- **A** 60
- **B** 8
- **C** 9
- **D** 100

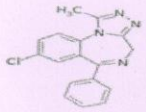
10 Which of the following are the principle laws of photochemistry?
- A Raoult's and Dalton's law
- B Raoult's and Henry's law
- C Lambert's and Beer's law
- D Grothus-Draper and Stark-Einstein law

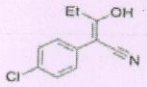
11 Which is sometimes used as an antidote for cyanide poisoning?
- A Phenyl Nitrite
- B Aryl Nitrite
- C Amyl Nitrite
- D Methyl Nitrite

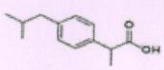
12 Give the similar name of Nalidixic Acid.
- A Nicotinic Acid
- B CegGram
- C Carboxylic Acid
- D NegGram

13 Which is the structure of Pyrimethamine?

A 

B 

C 

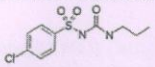
D 

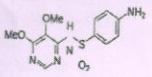
14 Which is the sulfa drug example?
- A Sulfadoxine
- B Chloromphenicol
- C Diazepam
- D Lidocane

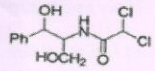
15 Dermatitis herpetiformis" is the disease regarding_____?
- A Headache
- B Tissues
- C Skin
- D Stomach

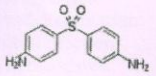
16 Which is the molecular formula of Vitamin B_2?
- A $C_{17}H_{20}N_4O_4$
- B $C_{17}H_{20}N_4O_5$
- C $C_{17}H_{20}N_4O_6$
- D $C_{17}H_{20}N_4O_7$

17 Which is the structure of Dapsone?

A 

B 

C 

D 

18 UV absorption spectrum of Pyridoxine is similar to _____.

A 2-hydroxypyridine
B 3-hydroxypyridine
C 4-hydroxypyridine
D 5-hydroxypyridine

19 Hormones secreted by the thyroid gland?

A Insulin
B Thyroxine
C Pyridoxine
D Riboflavin

20 Which drug used for the treatment of non-insulin-dependent diabetes mellitus (NIDDM)

A Chloropropamide
B Dapsone
C Lidocane
D Pyrimethamine

Section-B (Total Marks - 40)

Q.1 Short Notes (attempt all four compulsory- 3 marks each) (12)

A Laws of photochemistry
B Phosphorescence with Jablonski diagram
C Drug: Pyrimethamine
D Vitamin B Complex

Q.2 Explain in detail (attempt any four -7 marks each) (28)

A Explain briefly Fluorescence Quenching.
B Describe Terpenoid, Classification of Terpenoids and Give the full explanation of analytical and Synthetic evidence of Camphor.
C Give the Synthesis route and uses of **a)** Ibuprofen **b)** Chloromphenicol
D Give the Structural determination and Synthesis of Riboflavin.
E Describe Terpenoid, Classification of Terpenoids and Give the full explanation of analytical and Synthetic evidence of Camphor.