



**DEPARTMENT OF CHEMISTRY
FEDERAL UNIVERSITY OF TECHNOLOGY,
MINNA**

SECOND SEMESTER TEST 2018/2019 SESSION

**COURSE CODE: CHM 525 COURSE TITLE: Natural
Products Chemistry**

TIME ALLOWED:

**INSTRUCTIONS: Answer All Questions by filling the spaces
provided**

Q1. Provide the name for this structure, $\text{CH}_3\overset{\text{O}}{\parallel}\text{C}-\text{CoA}$
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Q2. Write out the structure of
malonyl-CoA.....

Q3. What is the name of the compound having this structure $\text{CH}_3\overset{\text{O}}{\parallel}\text{C}-\text{CO}_2\text{H}$
.....

Q4. Polyketides and fatty acids are formed by the linear combination of
.....

Q5. What are terpenes and terpenoids and where are found in plants? List
five examples in each case. Name any three of these compounds that
would be extracted in hexane and chloroform in each
case.....
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Q6. From which unit is terpenes biosynthetically derived? Provide its
molecular formula, IUPAC name and activated forms with names and

structures. How would you biosynthesise squalene from these terpenoid intermediates? How are these units joined together to built up monoterpenes and sesquiterpenes?

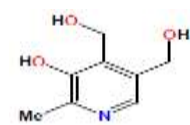
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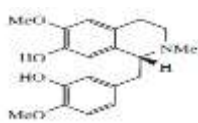
Q7. Write a short note on alkaloids

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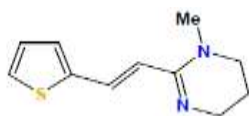
Q8. Identify and name the heterocycle(s) in these drugs as derivatives of natural products.



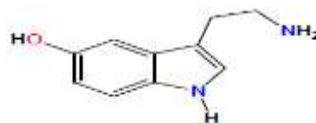
(a) Vitamin B6



(b) Reticuline



(c) Pyrantel



(d)

Serotonin

Q9. List out the purification steps in natural products isolation strategy

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