

PCH-BP 402T Medicinal Chemistry-1

End sem(MCQ) July 2021

Students have to switch on cameras of their systems.

Post time 2.30 pm , Due time 3.00 pm & close me 3.05 pm

Student to press submit button as mandatory Before Due time or Close time otherwise auto evaluation does not happen and they will be loosing 20 marks

* Required

* This form will record your name, please fill your name.

1. Which type of hydrogen bonding present when hydrogen bonding occurs between molecules? *

(1 Point)

- A and B both
- Intermolecular
- Ligands
- Intramolecular

2. Which of the following opioid analgesic is obtained removing rings B, C, and D of morphine?

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(1 Point)

- Pethidine
- Methadone
- Pentazocine

3. Which of the following statement is not true with respect to benzodiazepines as sedatives/hypnotics?

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(1 Point)

- Compounds without the 3-hydroxyl group have shorter overall half-life
- The N-substituent at position 1 should be small for higher intrinsic activity
- In diazepine ring B, saturation of the 4, 5-double bond or a shift of it to the 3,4-position decreases activity
- An electronegative substituent at position 7 is required for activity, and the more electronegative it is, the higher the activity

4. Which of the following is a CNS stimulant?

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(1 Point)

- Naphazoline
- Phenyl ephedrine
- Methamphetamine
- Sibutramine

5. Barbituric acid is prepared by condensation of

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(1 Point)

- Malonic acid and methyl urea
- Malonic acid and urea
- Diethyl malonate and methyl urea
- Diethyl malonate and urea

6. Alpha 2 receptor activate G-protein gated ----- channels

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(1 Point)

- Potassium
- Chloride
- Calcium
- Sodium

7. Isosterism is the process of

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(1 Point)

- Replacement similar mass number group
- Replacement similar valence group
- Addition of group having different mass number
- Replacement similar group
- Option 2

8. Name one drug with dibenzodiazepine structure

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(1 Point)

- Chlorpromazine
- Clonazepam
- Diazepam
- Clozapine

9. Identify the IUPAC name of Ketamine

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(1 Point)

- 2-(2-Chlorophenyl)-2-(methylamino)cyclohexanone
- 4-(2-Chlorophenyl)-2-(methylamino)cyclohexanone
- 2-(3-Chlorophenyl)-3-(methylamino)cyclohexanone
- 2-(2-Chlorophenyl)-2-(ethylamino)cyclohexanone

10. Which among the following is a oxymorphone derived narcotic antagonist with a cyclopropylmethyl group?

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(1 Point)

- Levallorphan
- Naloxone
- Nalorphine
- Naltrexone

11. What structural feature of Bethanechol is responsible increased hydrolytic stability?

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(1 Point)

- presence of carbamoyl group
- Presence of β -methyl group
- Presence of α -methyl group
- Presence of carbamoyl group & β -methyl group

12. The drug which act by blocking dopamine receptor especially D2 receptor is

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(1 Point)

- Clozapine
- Haloperidol
- Prochlorperazine maleate
- Loxapine

13. Which of the following drug exhibits E-Z isomerism ?

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(1 Point)

- Hyoscyamine
- Sulindac
- Ibuprofen
- Aceclofenac

14. Which factor influences drug receptor interactions? *

(1 Point)

- Complexation
- Hydrogen bonding
- Log P
- Molar refractivity

15. The major detoxification reaction involved in phase-II

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(1 Point)

- Acetylation
- Hydrolysis
- Reduction
- Oxidation

16. Which of the following drug is a aninoacridine derivative?

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(1 Point)

- Propantheline Bromide
- Tacrine
- Oxaprozin
- Zolpidem

17. Which of the following drug contain a pyrrolidine ring system?

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(1 Point)

- Alprazolam
- Procyclidine
- Pralidoxime
- Cyclopentolate

18. Which among the following is a Imidazopyridine?

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(1 Point)

- Alprazolam
- Clidinium bromide
- Benztropine
- Zolpidem

19. Which of the following NSAID is more than 500 fold active than aspirin and follows maximum general structural features required for NSAIDs ?

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(1 Point)

- Meclofenamate
- Flurbiprofen
- Diclofenac
- Indomethacin

20. Phenytoin is used for the treatment of *

(1 Point)

- Grandmal epilepsy
- None of the above
- Myoclonic seizures
- Petitmal epilepsy

Reg. No.									
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Manipal College of Pharmaceutical Sciences
MAHE, Manipal
4th Semester B-Pharm – End semester Examination, July 2021

Course Code. PCH-BP402T Course Title. Medicinal Chemistry-1

Date: 27-07-2021

Duration: 2hr

Max. Marks: 50

Instructions: Answer ALL questions

1. The duration of semester/annual sessional examination is from 3.05PM to 4.45 PM Indian Standard Time. This includes the time for answering the questions and uploading the document to the Microsoft Teams.
2. Candidate shall use A4 size plain white paper to write the answers.
3. The answer sheets used by the candidate shall not have watermark/logos or any other printed matter.
4. Candidate shall use only blue or black ink pen while answering the papers.
5. Candidate must write in each page Class, Register No. Name, Signature with date and the **camera in on mode**.
6. Candidate must write the correct question and number and then answer.
7. At the end, candidate must scan the answer pages using CamScan or any other suitable means in the order ensuring that the written matter is clearly visible in the image captured.
8. The entire document shall be submitted as a Single PDF. The file name of the PDF shall be your **Registration number-Subject code** (For example **190000009.pdf**)
9. Press turn in button after uploading answer file before Due time or Close time. Besides, the submission of the scripts is through MST only and the **submissions through emails are not acceptable**. System will not allow you to upload answer file after close time. Hence advised to submit before Due time preferably.
10. Before uploading the PDF file to MST, the candidate must ensure that all the written pages are included in sequence as per question number.
11. The candidate must open the PDF file to ensure that there are no technical problems and contents of all the pages are clearly visible. The file size should NOT be more than 45MB.
12. **Candidates must take care to upload the pdf document that contains the answers pertaining to the examination of concerned subject only.**
13. Candidate do hereby agree that they have received and read the detailed instructions from the college regarding their obligation/conduct during sessional examination.

Section A: MCQs Q. 1-20 (20 × 1 marks = 20 marks)

Section B: Short Answer Questions (6 × 5 marks = 30 marks)

21	Write the any three structural modifications of morphine leading to improvement in opioid analgesic activity. Outline the synthesis of a phenyl propyl amine opioid analgesic.	5 M
22A	What are the structural features which influences the lipophilicity of barbiturates and how it affects the onset and duration of action as sedatives and hypnotics	2.5 M
22B	Explain how cholinesterase active site is reversibly blocked by the action of aryl carbamates.	2.5 M
23A	Outline the synthesis of 2-(6-methoxynaphthalen-2-yl) propanoic acid	2.5 M
23B	Write four important structural features of diclofenac responsible for its anti-inflammatory action	2.5 M

24	Explain various physicochemical properties involved in drug action	5 M
25A	Explain the SAR of adrenergic agonist drugs	2.5 M
25B	Outline the method of synthesis carbamazepine	2.5 M
26	Classify antiepileptic drugs giving one structure from each class and explain the MOA of antiepileptic drugs	5 M
"End of question paper"		