



DBI-201723

Seat No. _____

Second Professional M. B. B. S. Examination

May - 2022

Pharmacology : Paper - II

(New Course)

Time : 3 Hours]

[Total Marks : 100

- Instructions :** (1) All questions are compulsory.
(2) The number on the right side indicates full marks.
(3) Draw diagrams where necessary.
(4) Write Section I and Section II on separate answer sheets.

SECTION-I

- 1 Answer the questions based on the following case scenario: **12**
A 35 years old man has come with complaint of acute onset diarrhoea. The stools are relatively small volume liquid but not watery. frothy and are preceded by griping pain in abdomen.. Foul smelling wind, urgency, eractation and mild fever are the other complaints. He has passed 4 loose motions in the past 8 and there is no appetite. He admits to have eaten spicy snacks last evening at a road side stall. Physsical examination reveals body temperature 101°F, no signs of dehydration, but diffuse abdominal tenderness. A tentative diagnosis of enteroinvasive diarrhoea is made.
- (a) Does this patient require rehydration therapy?
 - (b) Should an antibiotic be prescribed? If so, which antibiotic would be appropriate?
 - (c) Should an antimotility-antidiarrhoeal drug be coprescribed to reduce the number of stools?
 - (d) Should any other symptomatic drug be given to him?

- 2 Answer in detail on any **TWO** of the following: **12**
- (a) Newer insulin analogues
 - (b) Prokinetics
 - (c) Preanesthetic medication
- 3 Write notes on any **FOUR** of the following: **16**
- (a) Pharmacological basis for the use of sodium valproate in partial seizures.
 - (b) Pharmacological basis for the use of ethyl alcohol in methyl alcohol poisoning.
 - (c) Compare and contrast: Benzodiazepines and barbiturates.
 - (d) Compare and contrast: Sulfonylureas and biguanides.
 - (e) Drug treatment of Helicobacter pylori infection.
- 4 Write short notes on any **TWO** of the following: **4**
- (a) Use of selegiline in Parkinsonism
 - (b) Therapeutic uses of oxytocin
 - (c) Thiopentone sodium
- 5 Answer briefly: **6**
- (a) Name two drugs which can induce Parkinsonism.
 - (b) Name two disease-modifying anti -rheumatic drugs.
 - (c) Write one therapeutic use of flutamide.
 - (d) Which antidote is given in paracetamol poisoning? Why?
 - (e) Name, two opioid antagonists.
 - (f) Name two GnRH analogues.

SECTION - II

- 6 Answer the questions based on the following case scenario: **12**
- A 50-year old gardener weighing 58 kg was admitted to the hospital with fever for 4 days, severe pain in right upper part of abdomen, loss of appetite, vomiting and marked weakness. He was not well for the past 2-3 weeks and had lost weight. There was no history of chronic diarrhoea. Palpation of abdomen revealed soft tender enlargement of liver 2 cm below costal margin.

Marked tenderness was noted in the lower right intercostal region. Ultrasound showed a solitary 2.5 cm diameter abscess with sharp margins in the right lobe of liver. Stool examination was negative for any kind of ova and cysts. A clinical diagnosis of amoebic liver abscess was made and he was treated with: Injection Metronidazole 500 mg i.v. over 1 hour every 8 hours for 5 days along with infusion of glucose-saline and vitamins. The fever and vomiting subsided and he started eating food. The injections were substituted by oral metronidazole 800 mg 3 times a day for another 5 days, and the patient became well, except weakness and mild tenderness in the right lower chest. Repeat ultrasound showed abscess cavity size to decrease to 1.5 cm. The patient was discharged with advice for vitamins and food.

- (a) Was the choice of medication and route correct, or a better drug/route of administration is available?
- (b) Should metronidazole therapy be extended or a repeat course given?
- (c) Should the patient be given any other antiamoebic medication in addition to or following metronidazole?
- (d) Write mechanism of action and two other therapeutic uses of metronidazole.

7 Write in detail on any **TWO** of the following: 12

- (a) Amphotericin B
- (b) Drug therapy of migraine
- (c) Antimicrobial drug resistance

8 Write notes on any **FOUR** of the following: 16

- (a) Pharmacological basis for using combination of rifampicin and isoniazid in tuberculosis.
- (b) Compare and contrast Erythromycin and azithromycin.
- (c) Pharmacological basis for using artemisinin based combination therapy in falciparum malaria.
- (d) Integrase inhibitors
- (e) General toxicity of cytotoxic drugs

- 9 Write short note on any **TWO** of the following : 4
- (a) Principles of communication
 - (b) Kalamazoo consensus statement
 - (c) Beneficence
- 10 Answer briefly: 6
- (a) Explain the mechanism of action of ciprofloxacin.
 - (b) Write two therapeutic uses of pyridoxine.
 - (c) What is superinfection? Give one example.
 - (d) What is mechanism of action of clofazimine in leprosy?
 - (e) Name two Topical and two systemic drugs for acne vulgaris.
 - (f) Use of chelating agent in heavy metal poisoning-Explain with one example.
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