

Time: 2.5 Hours]

[Marks: 70

NB: All questions carry equal marks.

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- Q.1. Answer the following:
- (a) Classify sulpha drugs based on their duration of action with chemical structure. 4
 - (b) Discuss the synthesis of: Pamaquine and trimethoprim. 6
 - (c) Give the name of pathogens of trypanosomiasis. Give synthesis of trypan red. 4
- OR
- Q.1. Answer the following:
- (a) Define Antibiotics. Enlist β -lactam antibiotics and their clinical utility. 4
 - (b) Give the names of malarial parasites. Give the synthesis of pamaquine. 5
 - (c) Give synthesis of suramine. 5
- Q.2. Answer the following: 14
- (a) Define: Analgesic and antipyretic drugs. Give the synthesis and usefulness of: phenazone and phenylbutazone.
 - (b) What are cardiovascular drugs? Give the synthesis of: hydralazine and methyldopa.
 - (c) What are the symptoms of hypoglycemia? Give the preparation of Glipizide.
- OR
- Q.2. Answer the following: 14
- (a) Define the terms: Hypoglycemia and hyperglycemia. Give the synthesis of glyburide.
 - (b) Give a brief introduction of cardiovascular drugs. Give the synthesis of: diazoxide and procainamide.
 - (c) Give the classification of antipyretic drugs and give the synthesis of phenacetin and cinchophen.
- Q.3. Answer the following: 14
- (a) Give the full form of: AIDS and HIV. Give the classification of anti-HIV drugs. Give the synthesis of: lamivudine and nifedipine.
 - (b) What are broad spectrum antibiotics? Discuss the chemistry of D-penicillamine.
- OR
- Q.3. Answer the following: 14
- (a) Write in short about aromatic organo arsenicals (any three).
 - (b) Give the names of enzymes which are essential for the formation of HIV virus. Give the synthesis of: Zalcitabine and zidovudine.
 - (c) Give the synthesis of chloramphenicol.
- Q.4. (a) Explain the terms: Inhalation, intravenous and basal anesthetic with suitable examples. Give the synthesis of: Ketamine hydrochloride, procain and prilocain. 8
- (b) What are the differences between sulpha drugs and antibiotics? Give the synthesis of: sulphadiazine and sulphanilamide. 6
- OR
- Q.4. (a) Give a brief account on antileprotic drugs. 8
- (b) Explain blood clotting mechanism. Give the synthesis of any two blood coagulants. 6
- Q.5. (a) Discuss the importance of tranquillizers. Give the synthesis of any four important tranquillizing drugs. 14
- OR
- Q.5. (a) What is neoplasm? Mention different modes of treatment of cancer. Give the synthesis of any three anticancer drugs. 14