

SECTION - A

1.

- 1.1 The opium alkaloids in *Papaver somuiferum* is present as one of the following. Identify.
- (a) Free alkaloids (b) As salts of citric acid
(c) As salt of meconic acid (d) None of these
- 1.2 In expressing vitamin A activity one of the following is true. Identify.
- (a) One Re represents the biological activity in 1 μg of all trans retinol
(b) One Re represents the biological activity of 30 mg of all trans retinol
(c) One Re represents the biological activity of 0.334 μg of all trans retinol
(d) None of the above
- 1.3 Which of the antineoplastic agent is metabolised by xanthine oxidase?
- (a) 6-Mercaptopurine (b) Vincristine
(c) Chlorambucil (d) 6-Thioguanine
- 1.4 If a drug has a very small volume of distribution (V_d), it is likely that this drug
- (a) has a short biological life
(b) does not accumulate in various tissues and organs
(c) not bioavailable
(d) will not be effective
- 1.5 The energy of a photon is given by the relationship $E = h\nu$, where
- (a) E is energy of photon in kilo-calories
(b) E is energy of photon in cycles/sec
(c) E is the energy of photon in joules
(d) E is the energy of photon in ergs
- 1.6 Gas chromatographic technique can be used for
- (a) qualitative analysis only (b) quantitative analysis only
(c) both (d) none of these
- 1.7 Reference compound widely used in NMR spectroscopy for proton spectra in non-aqueous medium is:
- (a) Silane
(b) Tetramethyl Silane
(c) Dpph
(d) Peroxylamide Di Sulphonate

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- 1.8 Liposomes are
(a) uni or multilayered vesicles of phospholipids
(b) type of enzymes (c) fibrinopeptides (d) red blood cells
- 1.9 The gonadal hormones like Estrogens, Androgens and Progestins bind with
(a) receptors located in the cytoplasm
(b) receptors located in the nucleus of the cell
(c) receptors located in the contractile vacuoles
(d) none of the above
- 1.10 A highly sensitive semi quantitative method of detecting microbial antigens in biological fluid is:
(a) counter immune electrophoresis (b) nitroblue tetrazolium dye assay
(c) the Coomb's test (d) radio-immune electrophoresis
- 1.11 Polyene antibiotics such as amphotericin – B are most likely to
(a) inhibit bacterial DNA synthesis (b) bind to prokaryotic ribosomes
(c) act as antimetabolites
(d) react with sterols in the membrane
- 1.12 Among the following statements one of them is most appropriate for γ – Interferon. Identify.
(a) They are virus specific substances and not host specific, naturally occurring glycol-proteins.
(b) They are not virus specific substances, however, they are naturally occurring glycol-proteins.
(c) They are not virus specific substances, however they are not host specific either. They are naturally occurring glycol-proteins.
(d) They are virus specific and host specific naturally occurring glycoproteins.
- 1.13 The tear secretion contains an antibacterial enzyme known as
(a) Zymase (b) Diastase (c) Lysozyme (d) Lipase
- 1.14 A list of ACE inhibition is given below. One of them is not a Prodrug. Identify.
(a) Benzepiril (b) Captopril (c) Quinapril (d) Ramipril
- 1.15 Which one of the following is not a pharmacological effect of MORPHINE?
(a) Constriction of the pupil (b) C.N.S. depression
(c) Diarrhoea (d) Respiratory

- 1.16 Half life equation for First order reaction is:
- (a) $\frac{t}{2} = \frac{a}{2K}$ (b) $\frac{t}{2} = \frac{0.693}{K}$ (c) $\frac{t}{2} = \frac{1}{aK}$ (d) $\frac{t}{2} = \frac{3}{2} \frac{1}{a^2K}$
- 1.17 Which one of the following is true for alkaloidal bases?
- (a) Water solubility and organic solvent insolubility.
(b) Water insolubility and organic solvent insolubility.
(c) Water solubility and organic solvent solubility
(d) Water insolubility and organic solvent solubility
- 1.18 The conductivity of the solution of an electrolysis is:
- (a) non temperature dependent (b) temperature dependent
(c) pressure dependent (d) none of these
- 1.19. One of the materials listed below is most commonly used in film coating of tablets. Identify.
- (a) Hydroxypropyl Methyl Cellulose (b) Acacia
(c) Simple Syrup (d) Bees Wax
- 1.20. Lamination is:
- (a) separation of a tablet into two or more distinct layers.
(b) partial and complete separation of the top and bottom crowns of a tablet from the main body of the tablet.
(c) process of sub-coating of tablets
(d) none of the above
- 1.21. Among the four OPIOIDS given below one of them is equipotent on μ, δ, k_1 and k_3 receptor types. Identify.
- (a) Fentanyl (b) Methadone (c) Morphine (d) Etorphine
- 1.22. An amperometric titrations which one of the following is kept constant?
- (a) Current (b) Resistance (c) Voltage Applied (d) Conductance
- 1.23. Disposable syringes are made up of
- (a) Polypropylene (b) Transparent Polystyrene
(c) Glass (d) Poly Tetra Chloro Ethylene
- 1.24. Typhoid vaccine IP is a sterile suspension or a freeze dried solid prepared from
- (a) Salmonella Typhi Murium (b) Salmonella Para Typhi
(c) Salmonella Typhi (d) Salmonella Enteritidis

- 1.25 In the microbiological assay of bacitracin – IP the test organism used is
(a) Staphylococcus Aureus (b) Sataphylococcus Epidermidis
(c) Micrococcus Luteus (d) Bacillus Pumilus
- 1.26. In the general formula R-X-C-C-N. X= Nitrogen, or Carbon, r = Different groups. This formula represents
(a) Antitussive (b) Antipyretics
(c) Analgesics (d) Antihistamines
- 1.27. The biological source of cinnamon bark is:
(a) dried inner bark of the shoot of coppiced trees of *Cinnomomum zeylanicum* Family - Lauraceae
(b) dried inner bark of the shoot of coppiced trees of *Cinnomomum indicum* Family - Lauraceae
(c) dried wood bark of *Cinnomomum Camphora* Family - Lauraceae
(d) dried inner bark of the shoot of coppiced trees of *Cinnomomum loureirii* Family - Lauraceae
- 1.28. Identify the correct geneva name for CORTISONE.
(a) 4 – Pregnene 17 α , 21 – diol – 3, 11, 20 - trione
(b) 3 – Pregnene 17 α , 21 – diol – 3, 11, 20 - trione
(c) 4 – Pregnene 11 β , 17 α , 21 – triol – 3, 20 - dione
(d) 4 – Pregnene 12 β , 17 α , 21 – triol – 3, 20 – dione
- 1.29. Identify one of the carbonic anhydrase inhibitor that inhibit only luminal carbonic anhydrase enzyme?
(a) Methazolamide (b) Acetazolamide
(c) Dichlorphenamide (d) Benzolamide
- 1.30. Testosterone is rapidly converted to one of the following metabolic products in many tissues, which is the active androgen?
(a) 5- β -Dihydro Testosterone (b) 5-OH-Testosterone
(c) 5- α -Dihydro Testosterone (d) 5 α , 6 β -OH-Testosterone
- 1.31. One of the following drugs is an alkylating agent. Identify.
(a) Cylophosphamide (b) Methotrexate
(c) Allopurinol (d) Rifampicin

