

# All State NHM/AIIMS/ESIC/PGI Pharmacist Exam Planner Chapterwise Solved Papers

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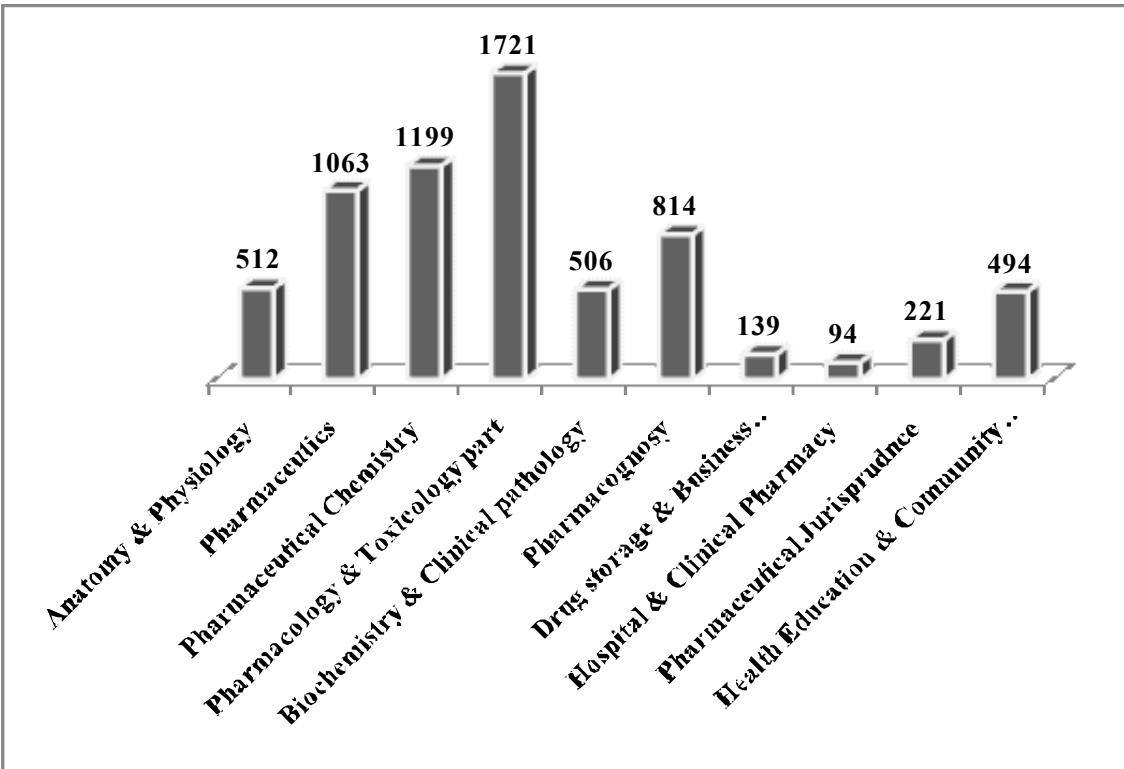
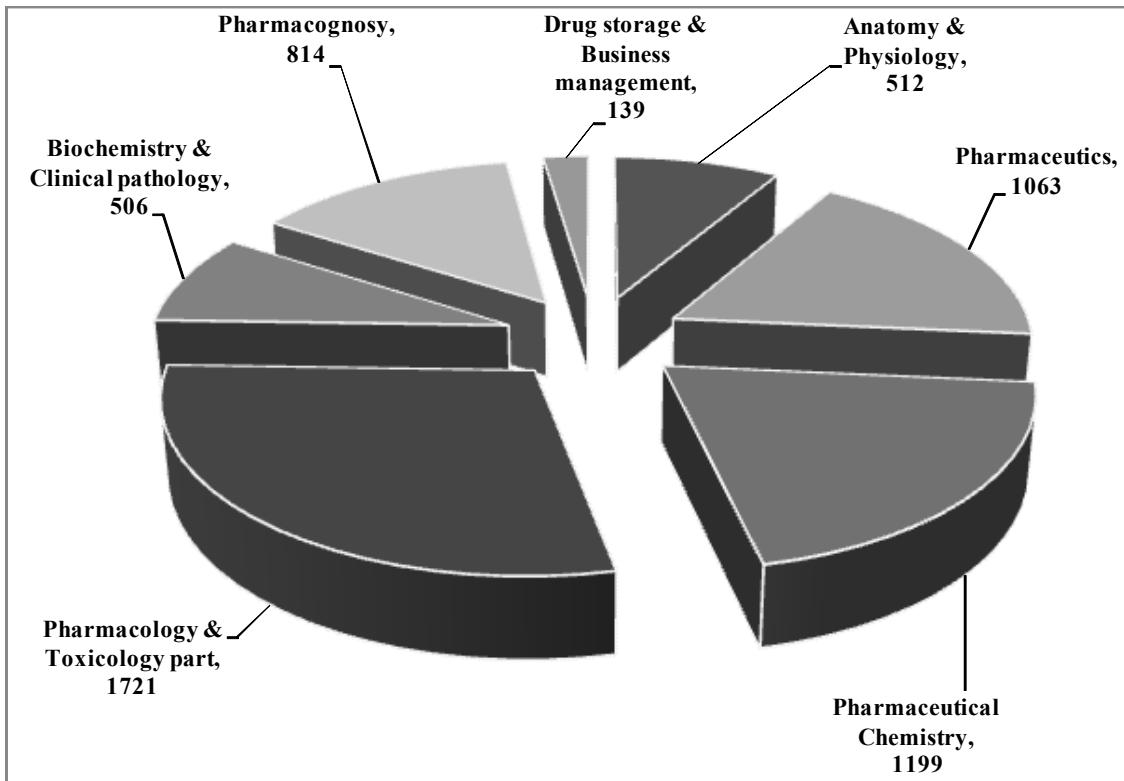
## **Pharmacist/JR Pharmacist Previous Year Exam Papers Analysis Chart**

S.No.	Papers	Organized Year	Total Question
1.	Safdarjung Pharmacist Mains	21.11.2023	80
2.	AMC Pharmacist	05.11.2023	60
3.	UPSSSC Pharmacist	26.03.2023	35
4.	Lucknow Cantonment Board Pharmacist	05.02.2023	50
5.	MPSC Pharmacist	08.02.2023	100
6.	UP NHM Pharmacist	29.12.2022	80
7.	UP NHM Pharmacist	28.12.2022	80
8.	Kerala PSC Pharmacist Gr. II	27.10.2022	100
9.	HPSSC Pharmacist	22.08.2022	120
10.	MP NHM Pharmacist (Contractual)	04.08.2022	80
11.	AMC Pharmacist	15.05.2022	90
12.	GPSSB Jr. Pharmacist	08.05.2022	120
13.	HPSSC Pharmacist	14.05.2022	120
14.	GPAT	09.04.2022	125
15.	Kerala PSC Pharmacist Gr. III	22.12.2021	100
16.	VSSC Pharmacist - A	07.11.2021	80
17.	GMC Pharmacist	08.08.2021	60
18.	Gujarat JMC Jr. Pharmacist	19.06.2021	50
19.	Gujarat VMC Pharmacist	28.03.2021	50
20.	GPSC Associate Professor Pharmacist	11.02.2021	200
21.	GPAT	27.02.2021	125
22.	Kerala PSC Pharmacist Gr. II	04.01.2021	100
23.	GPSC Asst. Professor Pharmacist	23.01.2021	170
24.	HPSSC Pharmacist	12.12.2020	120

25.	Kerala PSC Pharmacist Gr. II	04.11.2020	100
26.	NCL Pharmacist	08.11.2020	70
27.	GSSSB Sr. Pharmacist	07.01.2020	100
28.	GPAT	28.01.2020	125
29.	DSSSB Pharmacist	01.11.2019	100
30.	RRB Pharmacist Gr. III	21.07.2019	70
31.	RRB Pharmacist Gr. III	19.07.2019	80
32.	TNPSC Pharmacist (degree)	27.06.2019	200
33.	TNPSC Drugs inspector	27.06.2019	200
34.	TNPSC Drugs inspector	27.06.2019	200
35.	ESIC Delhi Pharmacist	26.02.2019 (Shift-I)	100
36.	ESIC Pharmacist	26.02.2019(Shift-II)	100
37.	GPAT	28.01.2019	125
38.	Gujarat BMC Pharmacist	30.12.2018	50
39.	CGHS Delhi Pharmacist	26.12.2018	50
40.	HPSSC Pharmacist	19.08.2018	120
41.	CGHS Hyderabad Pharmacist	27.06.2018	60
42.	Kerala PSC Pharmacist Gr. II	01.06.2018	80
43.	TNPSC Pharmacist (degree)	21.02.2018	200
44.	GSSSB Jr. Pharmacist	18.02.2018	100
45.	CGHS Pharmacist	08.01.2018	45
46.	AIIMS Delhi Pharmacist	2018	135
47.	GPAT	2018	125
48.	BSSC Pharmacist	2018	100
49.	VSSC Pharmacist - A	10.12.2017	80
50.	Kerala PSC Pharmacist Gr. II	12.07.2017	80
51.	Kerala PSC Pharmacist Gr. II	18.05.2017	80
52.	MP Vyapam Pharmacist	16.04.2017 (Shift-I)	75

53.	MP Vyapam Pharmacist	16.04.2017 (Shift-II)	75
54.	MP Vyapam Pharmacist	16.04.2017 (Shift-III)	50
55.	GPAT	2017	125
56.	Kerala PSC Pharmacist Gr. II	01.08.2016	80
57.	ESIC Pharmacist	22.05.2016	100
58.	ESIC Delhi Pharmacist	19.03.2016	100
59.	MPSC drug inspector	21.02.2016	90
60.	GPAT	2016	125
61.	Kerala PSC Pharmacist Gr. II	29.10.2015	80
62.	Kerala PSC Asst. Pharmacist	19.06.2015	60
63.	RRB Pharmacist Gr. III	23.06.2015	70
64.	DSSSB Pharmacist	26.04.2015	100
65.	Kerala PSC Pharmacist Gr. II	31.01.2015	80
66.	GPAT	2015	125
67.	Kerala PSC Pharmacist Gr. II	05.09.2014	80
68.	ESIC Gujarat Jr. Pharmacist	31.08.2014	80
69.	MPSC Pharmacist	15.04.2014	90
70.	CGHS Hyderabad Pharmacist	2013	100
71.	GPAT	2013	125
72.	UP NHM Pharmacist	2013	100
73.	RUSH Pharmacist	16.06.2012	80
74.	GPAT	2012	140
75.	GPAT	2010	100
76.	TNPSC Drugs inspector (Pharmacy)	26.07.2009	200
77.	MPSC drug inspector	05.09.2008	120
<b>Total</b>			<b>7720</b>

## Trend Analysis of Previous Year Exams Papers Through Bar Graph and Pie Chart





**Ans. (b):** white blood cells, also called leukocytes or leucocytes, are the cells of the immune system that are involved in protecting the body against both infectious disease and foreign invaders.

• The life span of the WBC is between 10 to 20 days. It is mainly responsible for the protection of the body from diseases.

• The life span of the RBCs is 20–120 days.

• The life span of the blood platelets is 3–5 days.

**Note:** According to commission right answer is option (c).

**10. Red cell count is carried out by \_\_\_\_\_**

- (a) Electrogram
- (b) Sphygmomanometer
- (c) Haemoglobinometer
- (d) Haemocytometer

**Lucknow Cantonment Board Pharmacist (05.02.2023)**

**Ans. (d) :** Red cell refers to red blood cells also known as erythrocytes which carries oxygen to the body from the lungs. A healthy person has 5–5.5 million RBCs per  $\text{mm}^3$  of blood which have lifespan of 120 days.

• Haemocytometer is a device that is used for counting red blood cells, it contains different grids and has specific area and volume to count the number of RBCs in a particular volume of blood.

• Haemoglobinometer is a device used for measuring the hemoglobin concentration of the blood.

• A sphygmomanometer is an instrument used to determine blood pressure.

**11. Urea formation occurs in**

- (a) Heart
- (b) Liver
- (c) Spleen
- (d) Kidney

**HPSSC Pharmacist (22.08.2022)**

**Ans. (b) :** Urea is formed in the body during nitrogen metabolism the hepatic cells in the liver. Urea is an excretory product and it enters into the blood, after its formation in the liver, when blood reaches the kidney, which filters it out from the blood and hence excretes urea out through the urine.

**12. Bile is formed in**

- (a) Gall bladder
- (b) Liver
- (c) Spleen
- (d) Blood

**HPSSC Pharmacist (22.08.2022)**

**Ans. (b) :** Bile is an aqueous liquid solution produced in the liver. It consists mainly bile salts, conjugated bilirubin with some electrolytes and water.

**13. Mitochondria are sites of**

- (a) Oxidative phosphorylation
- (b) Photolysis
- (c) Phosphorylation
- (d) Starch synthesis

**HPSSC Pharmacist (22.08.2022)**

**Ans. (a) :** Oxidative phosphorylation is the final step in cellular respiration, it occurs in the mitochondria. It is the principal purpose of oxygen respiration and the principal use of breathed in oxygen is to generate energy in the body.

**14. Which is not a true for Insulin?**

- (a) It is a amphoteric protein
- (b) It is soluble in water
- (c) It is inactivated by digestive enzymes
- (d) It combines with zinc to lose activity

**HPSSC Pharmacist (22.08.2022)**

**Ans. (d) :** Insulin is a small protein consisting 51 amino acids in its molecule. It works as a hormone and produced in the pancreas and added to the blood after meals when sugar levels are high it controls the sugar level in blood by allowing cells to absorb glucose. Insulin does not combine with zinc instead in the presence of zinc improves the peripheral insulin sensitivity.

**15. Heart rate of 160-180 refers to**

- (a) Atrial flutter
- (b) Atrial fibrillation
- (c) Adam syndrome
- (d) Ectopic activity

**HPSSC Pharmacist (22.08.2022)**

**Ans. (d) :** Irregular and fast rate of heartbeat (ranging 160-180) is termed as ectopic activity and it happens when our heart contracts (beats) too soon.

**16. Sphincter of oddi is present at exit of**

- (a) Oesophagus
- (b) Stomach
- (c) Urinary bladder
- (d) Gall bladder

**HPSSC Pharmacist (22.08.2022)**

**Ans. (d) :** The sphincter of oddi is the muscular valve surrounding the exit of the gall bladder i.e at the exit of bile duct and pancreatic duct into the duodenum.

**17. Male sex hormone testosterone is secreted by**

- (a) Spermatogenic
- (b) Sertoli cells
- (c) Leydig cells
- (d) Epididymis

**HPSSC Pharmacist (22.08.2022)**

**Ans. (c) :** Leydig cells are the source of androgenic hormone i.e testosterone in males. Leydig cells (LC) are present in the testicular interstitial tissue and their main function is to produce testosterone.

**18. All of the following are the disadvantages of diabetes, EXCEPT:**

- (a) Hypothyroid
- (b) Neuropathy
- (c) Kidney damage
- (d) Retinopathy

**UP NHM Pharmacist (29.12.2022)**

**Ans. (a) :** A condition in which the thyroid gland does not produce enough thyroid hormone.

Hypothyroidism deficiency of thyroid hormones can disrupt such things as heart rate body temperatures and all aspect of metabolism. Hypothyroidism is most prevalent in older in older woman.

**19. A person with O blood group can receive blood from a person having \_\_\_\_\_ blood group.**

- (a) A, AB
- (b) A
- (c) O
- (d) B

**UP NHM Pharmacist (29.12.2022)**

**Ans. (c) :** A blood type is a classification of blood based on the presence and absence of antibodies and in hirite antigenic substances on the & surface of red blood cells. These antigens may be proteins or glycoproteins or glycolipids depending on the blood group system.



**Ans. (a):** Light rays entering the eye is controlled by pupil, lets into our eyes as the muscles of our iris change its shape. The lens in our eye focuses light then goes to the back of our eye and hits our retina.

**31. Antiageing hormone is**

(a) Thyroxine (b) Melatonin  
(c) Estrogen (d) Testosterone

**HPSSC Pharmacist (14.05.2022)**

**Ans. (b) :** Antiaging hormone is melatonin. Melatonin is a hormone produced in the glandula pinealis that follows a circadian light dependent rhythm of secretion

**32. Oogenesis is an example of**

(a) Mitosis (b) Meiosis  
(c) Specialisation of cell (d) DNA replication

**HPSSC Pharmacist (14.05.2022)**

**Ans. (b) :** Oogenesis is an example of meiosis. Meiosis produces sex cells or gametes, Oogenesis is a process which creates female gametes called ovum. Meiosis is a type of cell division in sexually reproducing organisms that reduces the number of chromosomes in gametes.

**33. Nuclear envelope reappears at**

(a) Metaphase (b) Anaphase  
(c) Cytokinesis (d) Telophase

**HPSSC Pharmacist (14.05.2022)**

**Ans. (d) :** Nuclear envelope reappears at telophase. Telophase- During this phase, chromosomes disappears (become chromatin), nuclear membrane reforms, nucleoli reappears,. Telophase is the fifth and final phase of mitosis, the process that separates the duplicated genetic material carried in the nucleus of a parent cell into two identical daughter cells.

**34. Cytochromes are**

(a) O<sub>2</sub> acceptors (b) H<sub>2</sub> acceptors  
(c) Electron acceptors (d) H<sub>2</sub>O acceptors

**HPSSC Pharmacist (14.05.2022)**

**Ans. (c) :** The role of cytochrome c is to carry electrons from one complex of integral membrane proteins of the inner mitochondrial membrane to another, cytochromes are electron acceptors.

**35. The most common respiratory substrate is**

(a) Glucose (b) Sucrose  
(c) Maltose (d) Glycogen

**HPSSC Pharmacist (14.05.2022)**

**Ans. (a) :** Glucose is the most common respiratory substrate. One molecules of glucose produces 38 molecules of ATP. So its an instant energy source. It is also abundant and easily stored in the body in the form of glycogen. It is also stored in plants in the form of starch and glycoconjugates.

**36. Sebaceous glands are**

(a) Apocrine (b) Mesocrine  
(c) Holocrine (d) None of these

**HPSSC Pharmacist (14.05.2022)**

**Ans. (c):** Sebaceous glands are holocrine glands. sebaceous glands produce sebum via holocrine secretion, a largely uncharacterized mode of programmed cell death that contributes to the homeostasis and barrier function of the skin.

**37. A digestive enzyme functional only in infants is**

(a) Lactose (b) Gastric lipase  
(c) Intestinal lipase (d) Chymotrypsin

**HPSSC Pharmacist (14.05.2022)**

**Ans. (b) :** A digestive enzyme functional only in infants in gastric lipase. Intragastric lipolysis is probably of major importance in the newborn and especially in the premature infants. Gastric lipase is essential for infant fat digestion.

**38. Residual air mostly occurs in**

(a) Alveoli (b) Bronchus  
(c) Nostrils (d) Trachea

**HPSSC Pharmacist (14.05.2022)**

**Ans. (a):** Residual air mostly occurs in alveoli. The residual volume (RV) is the alveoli of the lungs, after respiratory. The lungs are never left completely empty, there is always some air left in the lungs after a maximum exhalation.

**39. Agranulocytes are**

(a) Eosinophils (b) Neutrophils  
(c) Basophils (d) None of these

**HPSSC Pharmacist (14.05.2022)**

**Ans. (d) :** Agranulocytes are white blood cells that have no distinct granules in their cytoplasm. Agranulocytes originates from the lymph nodes.

- Agranulocytes are known as mononuclear leukocytes.
- Granulocytes (neutrophils, eosinophils and basophils).
- Agranulocytes (lymphocytes and monocytes).

**40. The elimination of insoluble calcium phosphate takes place by**

(a) Liver (b) Kidney  
(c) Large intestine (d) Skin

**HPSSC Pharmacist (14.05.2022)**

**Ans. (c) :** The calcium ions binds to the phosphates and are present in the dietary food. Sometimes, calcium phosphate are consumed as an antacid. The calcium phosphate is a salt which is insoluble in water. The calcium ions are absorbed by the cells of the intestine as per requirement. The excess of calcium and phosphate ions are excreted by the large intestine in the form of faeces.

**41. Longest cells in human body are**

(a) Nerve cells (b) Bone cells  
(c) Leg muscle cells (d) Heart muscle cells

**HPSSC Pharmacist (14.05.2022)**

**Ans. (a) :** Longest cells in Human body are Nerve cells are also called Neurons that are found in the Nervous system they can be up to 3 feet long.

- Nerve cells are only present in animals. Nerve cells is an excitable and specialized cell of the Nervous tissue which helps in proper functioning of the brain and coordination of other parts of the body.

- Neurons are divided into 3 Types : Sensory neurons (stimuli response) Motor response (receive signals) and interneurons (connects one neuron to Another Neuron).

42. The term cytoplasm was coined by

(a) Sachs (b) Strasburger  
(c) Hanstein (d) Flemming

HPSSC Pharmacist (14.05.2022)

**Ans. (b) :** Term cytoplasm refers to the living substance or protoplast found within a cell, including the Nucleus, Eduard strans burger created the word cytoplasm.

→ The cytoplasm is the gel- like fluid inside the cell. It is the medium for chemical reaction. It provides a plate form upon which other organelles can operate within the cell.

43. Muscle relation is completed in which phase of general anesthesia?

(a) Phase-I (b) Phase-II  
(c) Phase-III (d) Phase-IV

HPSSC Pharmacist (14.05.2022)

**Ans. (c) :** Stage of general anesthesia:- Before they had machines to track our vital signs during general anesthesia, doctor come up with a monitoring system to keep patients safe. They divided the system into four stage -

- Stage 1. Induction
- Stage 2. Excitement or delirium
- Stage 3. surgical Anesthesia
- Stage 4. Over dose.

State : 3. **Surgical anesthesia:-** At this stage surgery can takes place our eyes stop moving muscle completely relax, and we may stop breathing without the help of machines. The anesthesiologist will keep we at this stage until the procedures is over.

44. An adult has \_\_\_\_\_ number teeth's of incisors in total.

(a) 2 (b) 4  
(c) 6 (d) 8

HPSSC Pharmacist (14.05.2022)

**Ans. (d) :** An Adult has 8 number teeth's of incisor in total. Human teeth function to mechanically break down items of food by cutting & crushing the food material.

- Human have four types of Teeth -

- Incisors
- Canines
- Premolars
- Molars

- Human dental formula =  $\frac{2123}{2123}$

45. Which one of the following is not a function of Liver?

(a) Storage site for vitamins  
(b) Site for metabolism of proteins  
(c) Secretion of glucagon  
(d) Detoxification of various drugs.

HPSSC Pharmacist (14.05.2022)

**Ans. (c) :** Secretion of glucagon is not a function of Liver.

Function of Liver →

- Bile production and excretion
- Excretion of bilirubin, cholesterol hormone and drugs.
- Metabolism of fats, protein and carbohydrates.
- Enzyme Activation
- Storage of glycogen, vitamins and minerals
- Synthesis of plasma proteins, such as albumin and clotting factor.

46. Calcitonin is secreted by

(a) Pituitary gland (b) Thyroid  
(c) Pancreas (d) Adrenal

HPSSC Pharmacist (14.05.2022)

**Ans. (b) :** Calcitonin is secreted by thyroid. Calcitonin is a 32 amino acid hormone secreted by the C- cells of thyroid gland.

**Pituitary gland :-** Its function including growth, metabolism, reproduction, lactation, water and sodium (salt) balance, labour and child birth.

**Pancrease :-** Pancrease creates natural juices called pancreatic enzyme to break down food. These Juices travel through our pancrease.

**Adrenal gland :-** Adrenal gland produce hormone that help regulate our metabolism, immune system, blood pressure response stress and other essential function.

47. Progestational phase of menstrual cycle is antagonized by

(a) Progesterone (b) Oestrogen  
(c) Luteinizing hormone (d) Prolactin

HPSSC Pharmacist (14.05.2022)

**Ans. (b) :** Progestational phase of menstrual cycle is antagonised by Oestrogen. The menstrual cycle is governed by an interaction between reproductive hormone (L.H,F.S.H, oestradiol and progesterone) that result in growth of a follicle, ovulation [release of egg from the ovary into the fallopian tubes].

48. Ganglion refers to

- (a) Collection of cell bodies of neurons in Central Nervous System.
- (b) Collection of numerous axons in Peripheral Nervous System.
- (c) Collection of cell bodies of neurons in Peripheral Nervous System.
- (d) Collection of axons in Central Nervous System.

HPSSC Pharmacist (14.05.2022)

**Ans. (c) :** Ganglion refers to collection of cell bodies of neurons in peripheral Nervous system. A ganglion is a cluster of nerve cells found in the P.N.S. The cells that are specific to a ganglion are called ganglion cells. However the term is sometimes used to describe retinal ganglion cells. The main component of the ganglion is a cell body called the somata and associated dendritic structure.

49. The middle protective covering layer of brain is  
(a) Pia mater (b) Dura mater  
(c) Arachnoid mater (d) Pons

HPSSC Pharmacist (14.05.2022)

**Ans. (c) :** The middle protective covering layer of brain is Arachnoid mater. There are three meninges layers that constitute the outer layer, the dura mater, a thin middle layer called the Arachnoid and the innermost layer called the pia mater.

\* Dura mater gives a protective shield for the brain and the spinal cord helps prevent the C.N.S. from getting damaged by fastening it to the skull.

\* Arachnoid mater is defined as a middle meninges layer that connects the dura mater & pia mater.

\* The pia mater is composed of a rich supply of blood vessels to provide the Nervous tissue with nutrient. Pia mater usually covers the spinal cord and is made up of two layers.

50. The germinal epithelium of ovary is

(a) Stratified columnar epithelium  
(b) Simple cuboidal epithelium  
(c) Simple columnar epithelium  
(d) Stratified cuboidal epithelium  
(e) Not attempted

GPSSB Jr. Pharmacist (08.05.2022)

**Ans. (b) :** The ovarian surface epithelium, also called the germinal epithelium of waldeyer, or coelomic epithelium is a layer of simple squamous to cuboidal epithelial cell covering the ovary.

51. Which of the following pairs of chemotherapeutic agents is most commonly used as maintenance in the treatment of Acute Lymphoblastic Leukemia (ALL)?

(a) Daurorubicin, Gemcitabine  
(b) Fludarabine Cyclophosphamide  
(c) Mereaptopurine, Methotrexate  
(d) Vincristine, Imatinib

GPSSB Jr. Pharmacist (08.05.2022)

**Ans. (c) :** Mereaptopurine Methotrexate pairs of chemotherapeutic agents is most commonly used as maintenance in the treatment of Acute Lymphoblastic Leukemia (ALL).

52. Glomerular filtrate is equal to:

(a) Serum + Plasma Proteins  
(b) Plasma  
(c) Blood – (RBCs – WBCs)  
(d) Blood – (Blood Cells + Plasma Proteins)  
(e) Not attempted

GPSSB Jr. Pharmacist (08.05.2022)

**Ans. (d) :** Glomerular filtrate is equal to blood (Blood cells + Plasma Proteins).

53. Chemoreceptor trigger zone is an area of the \_\_\_\_\_ and plays role in stimulating \_\_\_\_\_.

(a) Medulla Oblongata, Respiration  
(b) Cerebrum, Emesis  
(c) Cerebrum, Respiration  
(d) Medulla Oblongata, Emesis  
(e) Not attempted

GPSSB Jr. Pharmacist (08.05.2022)

**Ans. (d) :** Chemoreceptor trigger zone is an area of the Medulla oblongata and plays role in stimulating emesis.

54. Which of the following is a sign or symptom of left sided heart failure?

(a) Hepatomegaly  
(b) Peripheral edema  
(c) Bilateral rales  
(d) Jugular venous distension  
(e) Not attempted

GPSSB Jr. Pharmacist (08.05.2022)

**Ans. (c) :** Bilateral rales is a sign or symptom of left sided heart failure.

- Hepatomegaly is prominent in patients with chronic right-sided heart failure, but it may occur rapidly in acute heart failure.
- Peripheral edema (PE) is an accumulation of fluid in the interstitial space that occurs as the capillary filtration exceeds the limits of lymphatic drainage.

55. Tidal volume is equal to:

(a) (Residual volume) + (Expiratory reserve volume)  
(b) (Total lung capacity) – (Vital capacity)  
(c) (Functional residual capacity) – (Expiratory reserve volume)  
(d) (Inspiratory capacity) – (Inspiratory reserve volume)  
(e) Not attempted

GPSSB Jr. Pharmacist (08.05.2022)

**Ans. (d) :** Tidal volume is equal to (Inspiratory capacity) – (Inspiratory reserve volume) inspiratory capacity is the total volume of air that can be inhaled after a normal expiration. includes tidal volume and inspiratory reserve volume  $IC = TV + 1RV$ .

56.  $\beta$ -cells of Pancreatic islets secrete \_\_\_\_\_.

(a) Insulin  
(b) Pancreatic polypeptide  
(c) Somatostatin  
(d) Glucagon  
(e) Not attempted

GPSSB Jr. Pharmacist (08.05.2022)

**Ans. (a) :** The Pancreatic beta cells are Endocrine cells that synthesize, store and release insulin the anti-hyperglycemic hormone that antagonizes glucagon, Growth hormone, glucocorticoids epinephrine and other hyperglycemic hormones, to maintain circulating glucose concentrations within a narrow physiologic range. Pancreatic polypeptide (PP) is an endogenous peptide hormone secreted by the cells, also called PP cells of the islets of langerhans of pancreas. Mostly postprandially.

57. Carp metacarpal joint of the thumb is an example of :

(a) Ball and socket joint (b) Saddle joint  
(c) Hinge joint (d) Pivot joint  
(e) Not Attempted

GPSSB Jr. Pharmacist (08.05.2022)

**Ans. (b):** The carpometacarpal joint is a synovial saddle-shaped joint that serves as the articulation between the trapezium and the base of the first metacarpal the joint's primary function is to optimize the pinch function of the hand.

58. Nose, pharynx, windpipe, trachea and lungs are located in \_\_\_\_\_  
 (a) Excretory system  
 (b) Cardiovascular system  
 (c) Renal system  
 (d) Respiratory system

UP NHM Pharmacist (28.12.2022)

**Ans. (d) :** The respiratory system starts at the nose and mouth and continues through the airways and the lungs.  
 • The excretory system is a vital biological system that removes excess and waste, products from the body to maintain homeostasis.  
 • Cardiovascular system, which is made up of our heart and blood vessels is a crucial part of our body.

59. There are \_\_\_\_\_ isolated operable irregular bone in the vertebral column  
 (a) 20 (b) 15  
 (c) 24 (d) 10

UP NHM Pharmacist (28.12.2022)

**Ans. (c) :** There are 24 isolated operable irregular bone in the vertebral column. Vertebrae are the 33 individual bones that interlock with each other to form the spinal column. The vertebrae are numbered and divided into regions-cervical, Thoracic, lumbar, sacrum and coccyx. Only the top bones are moveable, the vertebrae of sacrum and coccyx are fused. The vertebrae in each region have unique features that help them perform their main functions.

60. Persons having blood group 'A' makes \_\_\_\_\_  
 (a) Anti-O (b) Anti-B  
 (c) Anti-A and Anti-B (d) Anti-A

UP NHM Pharmacist (28.12.2022)

**Ans. (b) :** Persons having blood group 'A' makes Anti-B.  
 • The Anti-A, Anti-B, and Anti-A,B, reagents are used in the red blood cell determination of the ABO blood group.

61. An organ that is not a component of the urinary system, is \_\_\_\_\_  
 (a) Adrenal gland (b) Ureter  
 (c) Urinary bladder (d) Urethra

UP NHM Pharmacist (28.12.2022)

**Ans. (a) :** An organ or structure that is not a component of the urinary system is the Adrenal gland.  
 The urinary system consists of ureters, kidneys, nephrons, urinary bladder, and urethra.  
 • The ureter is a small tube, or duct that connects the bladder and kidneys. Urine passes through the ureter from the kidneys to the bladder, the urethra is the tubular path that connects the bladder to the body's exterior, allowing urine to exit the body.

Adrenal glands, also known as suprarenal glands, are small triangular-shaped glands located on top of both kidneys. Adrenal glands produce hormones that help regulate our metabolism, immune system, blood pressure, response to stress and other essential functions.

62. Which of the following enzymes is repressed by the insulin hormone?

(a) Pyruvate kinase (b) Glycogen veductase  
 (c) Hexokinase (d) Glycogen synthase

UP NHM Pharmacist (28.12.2022)

**Ans. (a) :** The Pyruvate kinase exerts glucokinase-independent effects on insulin secretion pathways in B-cells. An exciting finding is that, by stealing the ADP required for oxphos, Pyruvate Kinase toggles mitochondria between ATP generation and PFP biosynthesis.

63. In NREM Sleep, Which part of brain is not involved?

(a) Dorsal raphe nucleus (b) Thalamus  
 (c) Hypothalamus (d) Basal forebrain

MP NHM Pharmacist-Contractual (04.08.2022)

**Ans. (a) :** In NREM Sleep Dorsal raphe nucleus is not involved.

- NREM sleep involves a reduced heart rate, lower blood pressure.
- The dorsal raphe nucleus is located on the midline of the brainstem and in one of the raphe nuclei. It has rostral and caudal subdivisions. The dorsal raphe is the largest serotonergic nucleus and provides a substantial proportion of the serotonin innervation to the forebrain.

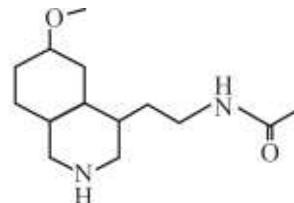
64. Melatonin is secreted by

(a) Hypothalamus (b) Pineal gland  
 (c) Adrenal cortex (d) Melanocytes

MP NHM Pharmacist-Contractual (04.08.2022)

**Ans. (b) :** Melatonin is a hormone secreted by the enigmatic pineal gland in response to darkness, hence named as the hormone of darkness.

- The pineal gland, conarium or epiphysis cerebri, is a small endocrine gland in the brain of most vertebrates.
- Melatonin found in plants and animals. It is primarily known in animals as a hormone.



N-[2-(5-methoxy-1H-indol-3-yl)ethyl]acetamide

65. Ventricles of brain are lined by

(a) Ependymocytes (b) Astrocytes  
 (c) Oligodendrocytes (d) Podocytes

MP NHM Pharmacist-Contractual (04.08.2022)

**Ans. (a) :** Ependymocytes are one of the three types of ependymal cells which in turn are one of the four principal types of glial cells, and are found lining ventricular system of the brain and the central canal of the spinal cord.



74. In Central nervous system, the nerves that arise from cerebrum and brain stem are called as \_\_\_\_\_

(a) Spinal nerves (b) Cranial nerves  
(c) Temporal nerves (d) Frontal nerves

**MP NHM Pharmacist-Contractual (04.08.2022)**

**Ans. (b) :** In central nervous system, the nerves that arise from cerebrum and brain stem are called as cranial nerves. The cranial nerves are a set of 12 paired nerves in the back of our brain. Cranial nerves send electrical signal to our brain. Face, neck and torso. Our cranial nerves help us taste, smell, hear and feel sensations. These also help us to make facial expressions, blink our eyes and move our tongue.

75. Creatinine clearance is used as a measurement of \_\_\_\_\_

(a) Renal excretion rate  
(b) Glomerular Filtration Rate  
(c) Active renal secretion  
(d) Passive renal absorption

**MP NHM Pharmacist-Contractual (04.08.2022)**

**Ans. (b):** Creatinine clearance is used as a measurement of Glomerular Filtration Rate (GFR). The creatinine clearance test helps provide information about how well the kidneys are working. The test compares the creatinine level in urine with the creatinine level in blood. This test requires both a urine sample and blood sample.

76. In healthy adult, glomerular filtration rate is \_\_\_\_\_

(a) 125 ml/min (b) 80 ml/min  
(c) 180 ml/min (d) 50 ml/min

**UP NHM Pharmacist (28.12.2022)**

**Ans. (a) :** In a healthy person the GFR is about 125 ml/min, which makes 180 liters per day.

77. A large number of cells present in nervous system, is called \_\_\_\_\_

**Or**

Which of the following is a part of the nervous system?

(a) Neuroglia (b) Nerve impulses  
(c) Dendrites (d) Neurons

**UP NHM Pharmacist (28.12.2022)**

**BSSC Pharmacist (2018)**

**Ans. (d) :** The nervous system is made up of neurons, specialized cells that can receive and transmit chemical or electrical signals and glia cells that provide support functions for the neurons by playing an information processing role that is complementary to neurons.

78. Which of the following type of food poisoning is caused by *staphylococcus aureus*?

(a) Autoimmune chronic gastritis  
(b) Helicobacter associated  
(c) Acute gastritis  
(d) Peptic ulceration

**UP NHM Pharmacist (28.12.2022)**

**Ans. (c):** Acute gastritis Type of food poisoning is caused by *staphylococcus aureus*. Staph food poisoning is a gastrointestinal illness caused by eating foods contaminated with toxins produced by the bacterium *staphylococcus aureus* staph bacteria.

79. Cerebrosides are \_\_\_\_\_

(a) Sulpholipids (b) Phospholipids  
(c) Drived lipids (d) Glycolipids

**UP NHM Pharmacist (28.12.2022)**

**Ans. (d) :** Cerebrosides the simplest neutral glycolipids/glycosphingolipids have a single sugar that is linked to ceramide.

80. Which one of the following statement is true for-cancer cells

(a) Oncoproteins produced by cancer cells act a neighboring cells  
(b) Cancer cells require stimulation by growth factors (c)  
(c) Cancer cells are highly sensitive to growth inhibitory signals  
(d) Cancer cells produce Oncoproteins in the absence of growth factors or external stimuli

**AMC Pharmacist (15.05.2022)**

**Ans. (a) :** Cancer cells:-

- Grow in the absence of signals telling them to grow.
- Ignore signals that normally tell cell to stop dividing or to die invade into nearby areas and spread to other areas of the body.
- Hide from the immune system, that normally eliminates damaged or abnormal cells.
- Trick the immune system into helping cancer cells stay alive and grow.
- Mutations destroy telomerase inhibitor.

81. Human Serum Albumin has a molecular weight of \_\_\_\_\_

(a) 34,000 (b) 65,000  
(c) 44,000 (d) 59,000

**AMC Pharmacist (15.05.2022)**

**Ans. (b) :** The human serum albumin is the most abundant protein in the human body. The molecular weight of human serum albumin is 65,000 Dalton.

82. Which of the following will result in very closest value to the Glomerular Filtration Rate (GFR)?

(a) Insulin Clearance  
(b) Albumin Clearance  
(c) Measure of Blood Urea Nitrogen (BUN)  
(d) Creatinine Clearance

**AMC Pharmacist (15.05.2022)**

**Ans. (d):** The creatinine clearance (CrCl) rate approximates the calculation of Glomerular filtration rate (GFR) since the glomerulus freely filters creatinine. However it is also secreted by the per tubular capillaries causing CrCl to overestimate the GFR by approximately 10% to 20%.

83. The term coronary artery disease is used to designate all of the following conditions, EXCEPT

- (a) Angina Pectoris
- (b) Sudden cardiac death
- (c) Congestive Heart Failure (CHF)
- (d) Myocardial Infarction

**Kerala PSC Pharmacist Gr.III (22.12.2021)**

**Ans. (c) :** Heart failure, also known as congestive heart failure is a condition that develops when your heart doesn't pump enough blood for our body's needs this can happen if our heart can fill up with enough blood. It can also happen when our heart is too weak to pump properly.

→ Angina pectoris is the medical term for chest pain or discomfort due to coronary heart disease.

→ sudden cardiac death (SCD) is by unexpected and cardiac in nature.

84. Which of the following isotope is used to study the functioning of thyroid gland?

- (a) Iodine 135
- (b) Iodine 133
- (c) Iodine 123
- (d) Iodine 127

**GMC Pharmacist (08.08.2021)**

**Ans. (c) :** Iodine-123 (or I-123) is a radio-isotope of iodine used for evaluation of the thyroid function and morphology. It is used in nuclear medicine for the diagnostic study of thyroid disease.

85. Which of the following releases renin?

- (a) Cells of Juxta-glomerular apparatus
- (b) Cells of Justa-medullary apparatus
- (c) Gastric glands of infants
- (d) Crypts of Lieberkuhn

**GMC Pharmacist (08.08.2021)**

**Ans. (a) :** The juxta-agglomerular cells are stimulated to secrete renin by three mechanism, all of which are activated in response to decreased extracellular fluid volume. Macula densa cells stimulate Juxtaglomerular cells to release renin when they detect a drop in sodium concentration in the tubular fluid.

86. Bile is produced by

- (a) Gallbladder
- (b) Liver
- (c) Pancreas
- (d) Intestine

**VSSC Pharmacist-A (07.11.2021)**

**Ans. (b) :** Bile is a physiological aqueous solution product and secreted by the liver. It consists mainly of bile salts phospholipids, cholesterol, conjugate bilirubin electrolytes and water bile travels through the liver in series of ducts. Eventually exiting through the common hepatic duct.

87. Largest organ in the body is

- (a) Liver
- (b) Skin
- (c) Bone
- (d) Lungs

**VSSC Pharmacist-A (07.11.2021)**

**Ans. (b) :** Largest organ in the body is skin. It can seem counterintuitive since many of our other organs are unseen. The skin, made up of three of the layers the Epidermis the Dermis and hypodermis is an external organ.

88. All the following causes hyperglycemia except

- (a) Streptozotocin
- (b) Diazoxide
- (c) Glucagon
- (d) Miglitol

**VSSC Pharmacist-A (07.11.2021)**

**Ans. (d) :** Miglitol is an oral alpha-glucosidase inhibitor used to improve glycemic control by delaying the digestion of carbohydrate. Miglitol inhibits the breakdown complexes carbohydrate in to glucose. Miglitol is used to treat high blood sugar levels that are caused by type 2 diabetes.

89. Endothelium dependent relaxing factor of blood.

- (a) Acetyl Choline
- (b) Nor adrenaline
- (c) Nitric oxide
- (d) None of the above

**VSSC Pharmacist-A (07.11.2021)**

**Ans. (c) :** Endothelium dependent relaxing factor of blood Nitric oxide.

Endothelium dependent relaxation occurs in resistance vessels as well as in larger arteries and is generally more pronounced in arteries platelet aggregation and adhesion to the blood vessel wall.

90. Thromboxane is mainly synthesized by

- (a) Lungs
- (b) Spleen
- (c) Platelets
- (d) Endothelium

**VSSC Pharmacist-A (07.11.2021)**

**Ans. (c) :** Thromboxane is mainly synthesized by platelets. Thromboxanes, a substance produced by platelets, lead to occlusion of blood vessel by fueling blood clots inside the vascular system, this has been implicated in many cardiovascular conditions ranging from heart attack to stroke.

91. Identify the method of metabolism of salicylates in our body.

- (a) Hydroxylation
- (b) Reduction
- (c) Conjugation with glucuronic acid
- (d) Oxidation

**Kerala PSC Pharmacist Gr.II (04.01.2021)**

**Ans. (c) :** metabolism of salicylates occurs through glucuronidation and by conjugation to salicyluric acid. Liver metabolizes salicylates by first order elimination, and the inactive metabolites are then excreted in the urine.

92. Which is used in cheese manufacturing as a substitute of rennin?

- (a) Papain
- (b) Collagenase
- (c) Pepsin
- (d) Urokinase

**Kerala PSC Pharmacist Gr.II (04.01.2021)**

**Ans. (c) :** Pepsin is used in cheese manufacturing as substitute of rennin. The key & characteristics step in the manufacture of rennet coagulated cheeses is the coagulation of milk through the limited proteolytic action certain proteinases, called rennets. Several proteinases can coagulate milk but only a few are suitable for cheese production. This led to a search for rennet substitute, four of which are commercially successful: bovine, pepsin and proteinases from the fungi *R. meihei*, *R. pusillus* and *C. parasitica*.

All successful rennet substitutes are aspartyl (acid) proteinases.