Second Edition

Solved Multiple Choice Questions

UPSC & MD

ENTRANCE EXAMINATION (HOMEOPATHY)

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Dr V.K. Chauhan

SOLVED MULTIPLE CHOICE QUESTIONS

UPSC & MD
ENTRANCE EXAMINATION (HOMEOPATHY)

MCQ's From: UPSC, KPSC, PG Entrance (Hom.), AIIMS, ALL INDIA ENTRANCE EXAMINATIONS

With 550 New Questions

SECOND EDITION

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PUBLISHER'S NOTE TO FIRST EDITION

At this time of the year when all the aspirants for UPSC and MD Entrance Examinations are planning their preparation for the exams, B. Jain is there to help the aspirants to achieve their dreams.

This book of Dr V. K. Chauhan which has been in the making since last two years is being released at just the appropriate hour. Dr Chauhan has been working day and night on this book for the last two years.

We hope that this book is useful for the students and doctors appearing for the entrance examinations. The final checking of this book was done in the shortest time possible to make it available to you in time.

Some mistakes in spelling might remain, the responsibility of which is on our shoulders. As far as the answers are concerned the book has been checked three times to correct all such errors and is as near perfection as any book on MCQs could be.

We hope that you find it as a useful tool for your preparation and look forward to your feedback about the book.

Kuldeep Jain
C.E.O., B. Jain Publishers (P) Ltd.

PUBLISHER'S NOTE TO SECOND EDITION

All what was left unchecked in previous editions has been taken care of. The editorial team of the book has corrected all mistakes of the previous edition. The book has been enhanced with new questions asked in various competitive examinations since 2008. The book was a bestseller for the past 3 years and we thank our readers for the same. We wish all new aspirants make the maximum out of this new effort.

Kuldeep Jain
C.E.O., B. Jain Publishers (P) Ltd.

PREFACE

In recent times there has been a growing need for objective assessment of knowledge and it is best done with good Multiple Choice Question Papers. The MCQ's help in discriminating accurately between candidates on the basis of their knowledge of the topics being tested in shortest possible time. The most important function of any MCQ is to rank candidates accurately and fairly according to their performance in that paper.

Keeping in view the above objective, this work has been undertaken. It mainly contains the MCQ's from the test papers of UPSC and State Public Service Commission as well as from PG Entrance Examinations in Homeopathic and Allopathic Institutions.

One should remember that the Multiple Choice Questions are not designed to trick or confuse any anyone but they are designed to test the knowledge in the subject concerned. Therefore, one should not try to look for the problems that aren't there.

While attempting to solve MCQ's one should follow the five most important points:

1. Read the questions carefully and be sure that you understand it.
2. Mark your responses clearly, correctly and accurately.
3. Use reasoning to work out answers, but if you do not know the answer it is better to leave it, especially when there is a provision of negative marking for wrong answers.
4. Good marks can only be obtained by having a basic and wide knowledge in the subject concerned.
5. One should be aware of the time constrain while solving the MCQ's.

All efforts were taken to make this book as error free as possible; however, many inadvertently might have crept in. I request all our readers and critics to kindly inform about any deficiencies. Suggestions to improve are welcome. I wish all the users make best possible use of this compilation and succeed in their endeavor.

Dr V. K. Chauhan

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At first I would like to sincerely thank Dr K.R. Mansoor Ali, BHMS, MD (Hom.) for his great contribution to the cause of homeopathy & his website www.similima.com for exhaustive information on Homeopathy and collection of questions asked in UPSC, MD Entrance, other State Service Examinations and Model Question Papers of Indian Homoeopathic Medical Association. This website is highly recommended to all the aspirants of UPSC and other competitive examinations.

I would also like to thank the creators of world renowned software(s) RADAR & Hompath for numerous valuable references taken from them for this book wherever needed.

I would like to express my gratitude and sincere thanks to my teachers, without whose help, guidance and blessings, this work would not have seen the light of the day. I sincerely wish to thank: Late Dr B.K. Bhatnagar, Ex. Principal NHMC & H; Dr K.K. Shrivastava, MD; Late Dr D.P. Rastogi, Ex. Principal NHMC & H; Dr V.K. Gupta, Ex. Principal NHMC & H; Dr V.K. Khanna, Ex. Principal NHMC & H, New Delhi.

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From the deepest core of my heart I would like to thank Mr. Kuldeep Jain C.E.O., B. Jain Publishers for his consistent motivation and support for bringing out this book.

Last but not the least, I express my thanks to my wife Rekha and other family members for their unconditional support.

Dr V. K. Chauhan

GUIDELINES FOR PREPARATION

The Union Public Service Commission and various other government organizations conduct recruitment examinations for filling up the vacancies in homeopathic departments; similarly various Indian universities conduct entrance examinations for admission to various MD courses in homeopathy. It is best done with Multiple Choice Question Papers. The MCQs helps in discriminating accurately between candidates on the basis of their knowledge of the topics; being tested in shortest possible time. Most of the MCQs are based on practical and real life situations which a homeopathic medical practitioner is likely to encounter. Therefore, Multiple Choice Questions are structured to test the intellectual ability of the candidates in different dimentions that is, subject knowledge, logical reasoning, inductive and deductive inference, perceptual speed and quantitative aptitude. About 200 MCQs are to be answered in 2 hours time.

Following is the breakup of approximate number of MCQs in each subject:

Serial No		**Subjects**	**Number of MCQ's**
Group	**Major Subject**		
A	1	Materia Medica	30-35
	2	Practice of Medicine	25-30
	3	Organon & Chronic Diseases	20-25
Group	**Minor Subjects**		
B	4	Anatomy	03-05
	5	Physiology	03-05
	6	Pharmacy	03-05
	7	Pathology	05-08
	8	Forensic Medicine	02-05
	9	Community Medicine	02-05
	10	Surgery	08-10
	11	Gynecology & Obstetrics	08-10
	12	Case taking & Repertorisation	10-15

Generally a candidate will encounter in most of the test paper following basic types of MCQs:

Type A
The Simple MCQ
Usually there are four choices given. In this type only one is the correct choice and rest three are distractors. Its example is as under:

Q. The Modus operandi of homeopathic medicines is explained in Organon of Medicine, in Aphorism? (UPSC-2004)

(a) § 26
(b) § 25
(c) § 29
(d) § 39

Ans: (c)

Note

The Modus operandi of homeopathic medicines is explained in Organon of Medicine, in Aphorism '29'.

Type B

The Multiple Selection Type MCQ

In this type of MCQ only one is correct answer and rest three are distractors. It's example as as under:
Consider the following symptoms regarding hemorrhagic diathesis: (UPSC-02)

(I) Hamamelis virginiana - Prostration out of proportion to the amount of blood loss.
(II) Secale cornutum - Continuous oozing of sanguinous liquid blood.
(III) Lachesis mutus - Haemorrhage from left side of the body, bright red and coaguable.
(IV) Cinchona officinalis - Aversion to sour things during haemorrhage.

Which of these statements is / are correct?

(a) (I) only.
(b) (I) and (II)
(c) (II), (III), and (IV).
(d) (III) and (IV).

Ans: (a)

Note:

The statement- (I) Hamamelis virginiana - Prostration out of proportion to the amount of blood loss is correct

Type C

Matching type MCQ

In this type of MCQ, the list I is to be matched with list II by selecting the answer using the given codes. It's example is as under:

Match list – I (Medicines) with list-II (symptoms in a case of prolapse uterus) and select the correct answer using the codes given below the lists: (UPSC-02)

List I (Homeopathic Medicine)	List II (Symptoms in case of prolapsed uterus)
A. Stannum metallicum	1. Worse during stool
B. Belladona	2. Better standing and sitting erect
C. Sepia	3. Better supporting vulva with hands
D. Lilium tigrinum	4. Better by sitting close

Code:

Code	A	B	C	D	Code	A	B	C	D
(a)	1	2	4	3	**(b)**	2	3	4	1
(c)	3	4	1	2	(d)	4	1	2	3

Ans: (a)

Type D:
The Sequencing Type MCQ
In this type of MCQ only one is the correct answer and rest of the three are disctractors. It's example is as under:

Which of the following is the correct order that matches with the sequential order of 'desire for sweets', 'aversion to sweets' and 'aggravation from sweets'? (UPSC-02)

(a) Argentum nitricum; Cinchona officinalis; Graphites
(b) Cinchona officinalis; Argentum nitricum; Graphites
(c) Graphites; Argentum nitricum; Cinchona officinalis
(d) Cinchona officinalis; Graphites; Argentum nitricum

Ans: (d)

Note
The correct order that matches with the sequential order of 'desire for sweets', 'aversion to sweets' and 'aggravation from sweets' is (d)

Type E
The Assertion and Reason Type MCQ
In this type of MCQ only one choice is correct and rest of the three are distractors. It's example is as under:
Assertion (A): Magnesium phosphoricum is preferred to Belladonna in spasmodic pains.
Reason (R): In Belladonna congestion is marked and pain appears and disappears suddenly.

Answer Code:
(a) Both A and R is true and R is the correction explanation of A.
(b) Both A and R is true but R is NOT a correct explanation of A.
(c) A is true but R is false.
(d) A is false but R is true.

Ans: (b)

Contents

Q. 416. Vitamin B12 deficiency can give rise to all of the following, except

(a) Myelopathy
(b) Optic atrophy
(c) Peripheral neuropathy
(d) Myopathy

Ans. (d)

Note

Vitamin B12 deficiency can give rise to all of the following, except 'Myopathy'.

Also see

Vitamin B 12 (Cynocobalamin) is a water soluble vitamin. Its deficiency causes megaloblastic anemia, fatigue and loss of sensation in limbs. Prolonged deficiency leads to degeneration of nervous system.
Ref: Park and Park 15th Ed, Pg-448

Q. 417. EEG is usually abnormal in all of the following except

(a) Subacute sclerosing panencephalitis
(b) Locked-in state
(c) Creutzfeldt-Jackob disease
(d) Hepatic encephalopathy

Ans. (b)

Note

EEG is usually abnormal in all of above except 'Locked-in state'.

Also see

Recognizable slow wave EEG abnormalities appear in encephalitis, prion (Creutzfeldt-Jakob) disease and metabolic states (e.g. hypoglycemia and hepatic coma).
Ref: Kumar and Clark 6th Ed. Pg-1203

Locked-in state

Condition is characterised as pseudocoma in which an awake patient has no ability to speak or move his legs, face, so as to indicate that he or she is awake, but vertical eye movements and lid elevation remain unimpaired. Thus in a "locked-in" state of preserved consciousness with quadriplegia and cranial nerve signs suggest complete pontine and lower midbrain infarction. The usual cause is infarction of the ventral pons, which contains all descending corticospinal and corticobulbar fibers.
EEG is normal in Locked in state.
Ref: Harrison's 15th Edition. Nervous system dysfunction.

Q. 418. Which of the following is not a neuroparasite?

(a) Tenia solium
(b) Acanthamoea
(c) Naegleria
(d) Trichinella spiralis

Ans. (d)

Note

'Trichinella spiralis' from the above is not a neuroparasite

Also see

Trichinella spiralis is a tissue roundworm. Distribution; worldwide. Intermediate host (Transmission); Swine / humans. Definitive Hosts; Swine /humans. Parasitic stage; Larva. Diagnosis; Muscle biopsy.
Ref: Harrison's 15th Edition. Section -16. 211. Laboratory diagnosis of parasitic infections.

Q. 419. Which of the following is a cause of reversible dementia?

(a) Subacute combined degeneration
(b) Picks disease
(c) Creutzfeld-Jakob disease
(d) Alzheimer's disease

Ans. (a)

Note
From above given causes 'Subacute combined degeneration' is reversible dementia.

Also see
Response to the treatment of subacute combined degeneration in early stages usually results in complete recovery.

Extended information
Causes of dementia

Reversible causes	Irreversible causes	Psychiatric disorders
-Hypothyroidism	-Alzheimer's	-Depression
-Thiamine deficiency	-Frontotemporal dementia	-Schizophrenia
-Vit-B-12 Deficiency	(Pick's Disease)	-Conversion Reaction
-Normal Pressure	-Huntington's	
Hydrocephalus	-Dementia with Lewy bodies	
-Chroncin infection	-Multi-infract	
-Brain tumor	-Leukoencephalopathies	
-Drug intoxication	-Parkinson's	

Ref: Ref: Harrison, 16th Ed, Pg-2396

Q. 420. All of the following CSF findings are present in tuberculous meningitis, except
(a) Raised protein levels
(b) Low chloride levels
(c) Cob-web formation
(d) Raised sugar levels

Ans. (d)

Note
All of the above CSF findings are present in tuberculous meningitis, except 'raised sugar levels'.

Also see
There is a rise in protein and a marked fall in glucose.
Ref: Davidson's 20th Ed, Pg-1228

Q. 421. Which one of the following serum levels would help in distinguishing an acute liver disease from chronic liver disease?
(a) Aminotransaminase
(b) Alkaline phosphatase
(c) Bilirubin
(d) Albumin

Ans. (d)

Note
Serum 'albumin' levels would help in distinguishing an acute liver disease from chronic liver disease.

Also see
The half life of albumin is about 22 days and hence, in acute liver injury, levels are normal, whereas in chronic liver disease it is low.
Ref: API Text Book of Medicine 6th Ed, Pg-560

Extended information
In case of acute liver diseases the aminotransaminase and bilirubin level are raised. However, in chornic liver disease the serum levels of albumin will be low. Because albumin is synthesized in by the liver, decreased serum albumin may result from liver disease. It can also result from kidney disease, which allows albumin to escape in the urine. Decreased albumin may also be explained by malnutrition or a low protein diet.

Q. 422. Paralysis of 3rd, 4th 6th nerves with involvement of ophthalmic division of 5th nerve, localizes the lesion to

(a) Cavernous sinus
(b) Apex of orbit
(c) Brainstem
(d) Base of skull

Ans. (a)

Note

The lesion is localized in 'Cavernous sinus'.

Also see

All these nerve pass through the cavernous sinus.

The cavernous sinus syndrome is a distinctive and frequently life-threatening disorder. It often presents as orbital or facial pain; orbital swelling and chemosis due to occlusion of ophthalmic veins; fever; occulomotor neuropaphty affecting the third, fourth, land sixth cranial nerves; and trigeminal neuropathy affecting the ophthalmic (V1) and occasionally the maxillary (V2) division of trigeminal nerve.

Ref: Harrison, 16th Ed, Pg-2438

Q. 423. Which one of the following is the most common location of hypertensive bleed in the brain?

(a) Putamen/external capsule
(b) Pons
(c) Ventricles
(d) Lobar white matter

Ans. (a)

Note

The most common location of hypertensive bleed in the brain is 'putamen / external capsule'.

Also see

The putamen is the most common site for hypertensive hemorrhage, and the adjacent internal capsule is invariably damaged. It results in contralateral hemiparesis. If the hemorrhages are large, drowsiness is followed by stupor as the hematoma compress brainstem. Coma ensues, accompanied by deep, intermittent respiration. Harrisons 15th Edition. Section 2- Diseases of central nervous system 361- Cerebrovascular diseases – Intracranial hemorrhage.

Q. 424. In which of the following diseases, the overall survival is increased by screening procedure?

(a) Prostate cancer
(b) Lung cancer
(c) Colon cancer
(d) Ovarian cancer

Ans. (c)

Note

In 'colon cancer' the overall survival is increased by screening procedure.

Also see

Screening means detecting disease early in asymptomatic stage with the aim of decreasing morbidity and mortality. Screening for **cancer** is possible as modern technology has come up with number of diagnostic tests and procedures that are safe, quick, and inexpensive. While screening can potentially save lives, and has been shown clearly to do so in the case of breast, cervical, and colon cancer.

Prostate Cancer

The most common prostate cancer screening modalities are digital rectal examination and assays for serum prostate-specific antigen (PSA). No well designed trial has demonstrated the true benefit of prostate cancer screening and treatment, but trials are in progress.

Lung Cancer

For lung cancer screening, chest radiographs and sputum cytology have been evaluated as methods for lung cancer screening. No reduction in lung cancer mortality has been found in these studies, although all the controlled trials performed have had low statistical power. Even screening of high-risk subjects (smokers) has not been proved to be beneficial. Spiral computed tomography (CT) can diagnose lung cancers at early stages; however, false-positive rates are high.

Colorectal Cancers
Two case-control studies suggest that regular screening of people over 50 with sigmoidoscopy decreases mortality.
Ovarian Cancer

Adnexal palpation, transvaginal ultrasound, and serum CA-125 determination have been considered for ovarian cancer screening. Adnexal palpation is too insensitive to detect ovarian cancer at an early enough stage to affect mortality substantially.
Ref: Section 1 – Neoplastic disorders 80. Prevention and early detection of cancer. Harrison's Principles of internal Medicine – 15th Edition.

Q. 425. Fordyce's (spots) granules in oral cavity arise from
(a) Mucous glands
(b) Sebaceous glands
(c) Taste buds
(d) Minor salivary glands

Ans. (b)
Note
Fordyce's (spots) granules in oral cavity arise from 'Sebaceous glands'.
Also see
Fordyce's spots (ectopic sebaceous glands), which have no erythematous halos and are found in the mouth of healthy individuals.
Harrison's 15th Edition. Section 2- Alterations in body temperature. 18. Fever and Rash.
Fordyce's disease: It is aggregation of small yellowish spots just beneath mucosal surface at buccal and labial mucosa, no symptoms, due to hyperplasia of sebaceous glands. Prognosis; remains without apparent change indefinitely.
Harrison's 15th Edition. Table 31-2 Pigmented lesions of oral mucosa.

Q. 426. Epstein Barr (EB) virus has been implicated in the following malignancies, except
(a) Hodgkin's disease
(b) Non-Hodgkin's lymphoma
(c) Nasopharyngeal carcinoma
(d) Multiple myeloma

Ans. (d)
Note
Epstein Barr (EB) virus has been implicated in the above malignancies, except 'Multiple myeloma'.
Also see
EBV is associated with following malignancies:
-Burkitt's lymphoma
-Anaplastic nasoparyngeal carcinoma
-Hodgkin's disease (Especially mixed cellular type)
-Tonsillar carcinoma
-T cell lymphoma
-Thymoma
-Gastric carcinoma
Ref: Epstein Barr Virus Infections. Clincial manifestations. Harrison's Principles of Internal Medicine -15th Edition.
Multiple myeloma
Cause of multiple myeloma is not known. Myeloma has been seen more commonly than expected among farmers, wood workers, leather workers and those exposed to petroleum products.
Myeloma occurred with increased frequenct in tose exposed to the radiation of nuclear warheads in World War II after a 20 year latency.
Ref: Plasma cell disorders. Harrison's Principles of Internal Medicine -15th Edition.
Non-Hodgkins lymphoma
The neoplastic diseae clearly seen with an increased frequency in patients ith HIV infction are Kaposi's sarcoma and non-Hodgkin's lymphoma.

Ref: AIDS and related clinical manifestations.
Ref: Harrison's Principles of Internal Medicine -15th Edition.

Q. 427. HbA1c level in blood explains

(a) Acute rise of sugar
(b) Long term status of blood sugar
(c) Hepatorenal syndrome
(d) Chronic pancreatitis

Ans. (b)

Note

HbA1c level in blood explains 'Long term status of blood sugar'.

Also see

Hb A1c (GHb, glycohemoglobin, Diabetic control index, Hemoglobin-glycosylated)
It is a blood test that measures the amount of glycosylated hemoglobin.
Value:
The HbA1c is is performed to measure blood sugar control in individuals with diabetes mellitus.
Normal value:
Glycosylated hemoglobin is 2.2 to 4.4% of total Hb is normal.
Abnormal results mean:
Inadequate regulation of blood glucose levels over a period of weeks to monts (poorly controlled diabetes mellitus).

Extended information

Glycosylated haemoglobin:
This test provides a long term index of glucose control. This test is based on the following rationale: glucose in the blood is complexed to certain fraction of hemoglobin to an extent proportional to the blood glucose concentrtation. The percentage of such glycosylated hemoglobin reflects the mean blood glucose levels during the red cell life – time i.e. about the previous 2-3 months.
Ref: Park and Park 18th Ed, Pg-315

Q. 428. The most common histologic type of thyroid cancer is

(a) Medullary type
(b) Follicular type
(c) Papillary type
(d) Anaplastic type

Ans. (c)

Note

The most common histologic type of thyroid cancer is 'papillaty type'.

Also see

The papillary carcinoma of thyroid is the most common cancer of thyroid gland. About 75-85% cancers diagnosed in US are papillary carcinoma. It is more common in women than in men.

Cell Type	Frequency	Behaviour	Spread	Prognosis
Papillary	70%	Occurs in young	Local, sometimes lung/bone secondaries	Good, especially in young
Follicular	20%	More common in females	Metastases to lung/bone	Good if respectable
Anaplastic	<5%	Aggrresive	Locally invasive	Very poor
Lymphoma	2%	Variable		Sometimes responsive to radiotherapy
Medullary cell	5%	Often familial	Local and Metastases	Poor, but indolent course

Ref: Clinical Medicine by Kumar and Clark 6th Ed, Pg-1080

Q. 429. Persistent vomiting most likely causes

(a) Hyperkalaemia
(b) Acidic urine excretion
(c) Hypochloremia
(d) Hyperventilation

Ans. (c)

Note

Persistent vomiting most likely causes 'hypochloremia'.

Also see

Metabolic alkalosis occurs as a result of net gain of [$HCO3^-$] or loss of nonvolatile acid (usually HCl by vomiting) from the extracellular fluid. Since it is unusual for alkali to be added to the body, the disorder involves a generative stage, in which the loss of acid usually causes alkalosis, and a maintenance stage, in which the kidneys fail to compensate by excreting $HCO3^-$ because of volume contraction, a low GFR, or depletion of Cl^- or K^+.

Persistent vomiting (pyloric obstruction or conitious gastric aspiration) causes loss of chlorides with accelerated loss of sodium and biocarbonate in urine and increased renal excretion of potassium.

Ref: Text Book of Surgery by S. Das 4th Ed, Pg-32

Q. 430. In which of the following a 'Coeur en Sabot' shape of the heart is seen?

(a) Tricuspid atresia
(b) Ventricular septal defect
(c) Transposition of great arteries
(d) Fallot's Tetralogy

Ans. (d)

Note

From above in 'Fallot's Tetralogy' the 'Coeur en Sabot' shape of heart is seen.

Also see

Tetralogy of fallot is a congenital cyanotic cardiac disease. The four component of Fallot's Tetralogy are:

-High large ventricular septal defect
-Overriding aorta
-Right ventricular hypertrophy
-Pulomnary stenosis

The X-Ray reveals: A 'Coeur en sabot' (boot shaped heart; appearance of heart due to lifting of apex of the heart above diaphragm from right ventricular hypertrophy seen in 10% cases) with:

-Right ventricular hypertrophy
-Deep Pulmonary bay due to hypoplastic pulmonary artery/ Concavity in the region of the pulmonary conus.
-The pulmonary vascular markings are typically diminished.
-Aortic arch and knob may be on the right side.

The radiological examination characteristically reveals a boot shaped heart (Coeur en sabot) with prominence of the right ventricle and a concavity in the region of pulmonary conus.

Ref: Harrison 16th Ed, Pg-1389

Q. 431. In Budd Chiari syndrome, the site of venous thrombosis is

(a) Infrahepatic inferior vena cava
(b) Infrarenal inferior vena cava
(c) Hepatic veins
(d) Portal vein

Ans. (c)

Note

In Budd- Chiari syndrome, the site of venous thrombosis is 'hepatic veins'.

Also see

Budd-Chiari syndrome

It results from occlusion of the hepatic veins. Condition is characterised by grossly enlarged and tender liver

and ascites. Fatures of CCF are absent. The most common causes of thrombosis of the hepatic veins are; polycythemia rubra vera, myeloproliferative syndromes, oral contraceptive use. It may also result from invasion of the inferior vena cava by tumor, such as renal cell or hepatocellular carcinoma. Idiopathic membranous obstruction of the inferior vena cava is the most common cause of this syndrome in Japan. Hepatic venography or liver biopsy showing centrilobular congestion and sinusoidal dilatation in the absence of right-sided heart failure confirms diagnosis of Budd-Chiari syndrome.
Harrison's Principle of Internal Medicine – 15th Edition. Liver and biliary tract disease.

Q. 432. Polycystic disease of the kidney may have cysts in all of the following organs, except
(a) Lung
(b) Liver
(c) Pancreas
(d) Spleen

Ans. (a)
Note
Polycystic disease of the kidney may have cysts in all of the following organs, except 'Lung'.
Also see
Autosomal Dominant Polycystic Kidney Disease (ADPKD) or Adult type polycystic kidney disease is characterised by multiple bilateral cysts that cause enlargement of kidney causing reduced functioning of renal tissue due to pressure effect.
It is associated with:
-Cysts in liver, spleen, pancreas
-Saccular aneurysms
-Colonic diverticulosis especially cerebral
-Colonic diverticulosis
-CVS; Aortic root dilatation, AR, MR, Mitral valve prolapse
-Others; Hereditary spherocytosis, myotonic dystrophy
Ref; Polycystic Disease of Kidneys-Page 614-Medicine for Students by Golwalla – 12th Edition.

Q. 433. Kinky-hair disease is a disorder where an affected child has peculiar white stubby hair, does not grow, brain degeneration is seen and dies by age of two years. Mrs A is hesitant about having children because her two sisters had sons who had died from kinky hair disease. Her mother's brother also died of the same condition. Which of the following is the possible mode of inheritance in her family?
(a) X-Iinked recessive
(b) X-Iinked dominant
(c) Autosomal recessive
(d) Autosomal dominant

Ans. (a)
Note
From above the 'X-linked recessive' mode of inheritance.
Also see
Menkes kinky hair syndrome is an X-linked recessive metabolic disturbance of copper metabolism characterized by mental retardation, hypocupremia, and decreased circulating ceruloplasmin. It is caused by mutations in a copper-transporting *ATP7A* gene. Children with this disease often die within 5 years due to dissecting aneurysms or cardiac rupture.
Disorder:
-Menkes disease
Substance involved:
-Copper
Tissue Manifesting Transport Defect:
-Most tissues except liver
Proposed Molecular Basis of defect:
-Copper-transporting ATPase (ATP7A)
Major Clinical Manifestations:

-Severe mental retardation, pili torti (kinky hair), typical facies, arterial tortuosity, excess wormian bones, thermal instability.

Mode of inheritance:

-X-linked recessive

Ref; Harrison's Principles of Internal Medicine – 15th Edition. Disorders of endocrinology and etabolism.

Q. 434. The occurrence of hyperthyroidism following administration of supplemental iodine to subjects with endemic iodine deficiency goiter is known as

(a) Jod-Basedow effect
(b) Wolff-Chaikoff effect
(c) Thyrotoxicosis factitia
(d) De Quervain's Thyroiditis

Ans. (a)

Note

The condition is known as 'Jad-Besedow effect'.

Also see

In cases of nontoxic multinodular goiter iodine containing substances should be avoided because of the risk of inducing the Jod Basedow effect, characterised by enhanced thyroid hormone production by autonomous nodules.

Ref; Harrison's 15th Edition. Disorders of thyroid gland.

Q. 435. In hematuria of glomerular origin the urine is characterized by the presence of all the following except

(a) Red cell casts
(b) Acanthocytes
(c) Crenated red cells
(d) Dysmorphic red cells

Ans. (b)

Note

In hematuria of glomerular origin the urine is characterized by the presence of all of the above except 'acanthocytes'.

Also see

Acanthocytes; Spur cells or acanthocytes (Spur cell anemia) are recognized as distorted red blood cells containing several irregularly distributed thorn like projections. It occurs in severe liver diseases.

Extended information

Presence of red cells confirms the presence of blood in the urine and with phase-contrast dicroscope, dysmorphic appearance of RBC's, which suggests glomerular aetiolgoy, can be appreciated.

Ref: API, 6th Ed, Pg-625

Rapidly progressive glomerulonephritis; Hematuria, microscopic or gross, and RBC casts are always present. Telescopic sediment may be present.

Ref: API, 6th Ed, Pg-630

Q. 436. A middle aged man presents with paresthesia of hands and feet. Examination reveals presence of Mees' lines in the nails and rain drop pigmentation in the hands. The most likely causative toxin for the above mentioned symptoms is

(a) Lead
(b) Arsenic
(c) Thallium
(d) Mercury

Ans. (b)

Note

The most likely causative toxin for the above mention symptoms is 'arsenic'.

Also see

In cases of chronic arsenic poisoning, the onset of symptoms takes palce about 2 – 8 weeks. The findings include, skin and nail changes, such as hyperkeratosis, hyperpigmentation, exfoliative dermatitis and Mees

lines (transverse white striae of the fingernails) sensory and motor polyneuritis manifesting as numbness and tingling in a 'stocking –glove' distribution, distal weakness and quadriplegia. The epidemiological studies have linked chronic consumption of water containing arsenic.

Extended information
Arsenic (herbilside; insecticide) poisoning; skin changes, Mees' lines in nails; painful; systemic effects.
Ref: Harrison, 16th Ed, Pg-2505

Q. 437. All of the following can cause neuropathies with predominant motor involvement, except
(a) Acute inflammatory demyelinating polyneuropathy
(b) Acute intermittent porphyria
(c) Lead intoxication
(d) Arsenic intoxication

Ans. (d)
Note
All of above can cause neuropathies with predominant motor incvolvement except 'arsenic intoxicaiton'.
Also see
Aresnic intoxication leads to sensorty motor involvement.
Acute intermittent porphyria
The peripheral neuropathy is due to axonal degeneration and primarily affects motor neurons. Motor neuropathy affects the proximal muscles (shoulders and arms). Sensory changes such as paresthesia and loss of sensation are less prominent. Progressive muscular weakness can lead to respiratory and bulbar paralysis.
Lead intoxication
The lead poisoning is characterized by abdominal pain, headache, irritability, joint pain, fatigue, anemia, peripheral motor neuropathy, and deficits in short-term memory and the ability to concentrate.
Acute inflammatory demyelinating polyneuropathy (GBS)
It involves rapidly evolving paralysis with areflexia.
Ref: Harrison Ed 16th, Pg-2503, Table 363 -3 -4

Q. 438. An HIV positive patient complains of visual disturbances. Fundal examination shows bilateral retinal exudates and perivascular hemorrahges. Which of the following viruses are most likely to be responsible for this retinitis
(a) Herpes simplex virus
(b) Human herpes virus 8
(c) Cytomegalovirus
(d) Epstein-Barr(EB) virus

Ans. (c)
Note
From above viruses are most likely to be responsible for this retinitis is 'Cytomegalovirus'.
Also see
The above retitins findings are in tune with the cytomegalovirus.
Ref; Harrison's 15th Edition. Atlas of Fundoscopic findings, IV-2 Cytomegalovirus.

Q. 439. Which of the following viruses is not a common cause of viral encephalitis?
(a) Herpes simplex virus type 2
(b) Japanese encephalitis virus
(c) Nipah virus
(d) Cytomegalovirus

Ans. (c)
Note
From above viruses 'Nipah virus' is not a common cause of viral encephalitis.
Also see
New causes of viral encephalitis are constantly appearing and in this line the Nipah Virus is a new virus to cause recent outbreak of encephalitis in Malaysia.
Ref; Harrison's. 15th Edition. Viral meningitis and encephalitis.

Q. 440. All of the following infections are often associated with acute intravascular hemolysis except

(a) Clostridium tetani
(b) Bartonella bacilliformis
(c) Plasmodium falciparum
(d) Babesia microti

Ans. (a)

Note

All of the above infections are often associated with acute intravascular hemolysis except 'Clostridium tetani'.

Also see

Red cells injured directly by various infections. The most common infection causing hemolysis is malaria. Other infections that lead to hemolytic anemia are infections by protozoa babesia, trypanosomiasis, and visceral leishmaniasis. A severe acute hemolytic anemia is produced in bartonellosis, caused by bacillus Bartonella bacilliformis. Profound fatal hemolytic anemia can occur in clostridial sepsis with severe intravascular erythrocyte destruction. Hemolytic anemia may occur with bacterial septicaemia caused by gram positive or nevgative organisms and is especially common in children.

Ref: API textbook of Medicine, 7th Ed, Pg-946

The clostridium tetani do not cause intravascular hemolysis. It causes 'Tetanus' which is a neurological disorder, characterized by increased muscle tone and spasms, which is caused by tetanospasmin, a powerful protein toxin produced by Clostridium tetani. Tetanus occurs in several clinical forms, including generalized, neonatal and localized disease.

Ref: Harrison.

Q. 441. All of the following are the electrocardiographic features of severe hyperkalemia except

(a) Peaked T waves
(b) Presence of U waves
(c) Sine wave pattern
(d) Loss of P waves

Ans. (b)

Note

All of the above are the electrocardiographic features of severe hyperkalemia except 'Presence of U waves'.

Also see

The earliest electrocardiographic changes include increased T-wave amplitude, or *peaked T waves*. More severe degrees of hyperkalemia result in a *prolonged PR interval and QRS duration*, atrioventricular conduction delay, and *loss of P waves*. *Progressive widening of the QRS complex and merging with the T wave produces a 'sinewave pattern'*. The terminal event is usually *ventricular fibrillation or asystole*.

Fig 12.9 Progressive ECG changes with increasing hyperkalemia.

Ref: Clincial Medicine by Kumar Clark 6th Ed, Pg-709

Q. 442. Commonest cause of sporadic encephalitis is

(a) Japanese B Virus
(b) Herpes Simplex Virus
(c) Human Immunodeficiency Virus
(d) Rubeola Virus

Ans. (b)

Note

Commonest cause of sporadic encephalitis is 'Herpes Simplex Virus'.

Also see

HSV accounts for sporadic cases of viral encephalitis. Cases are distributed throughout the year, and the age distribution appears to be biphasic, with peaks at 5 to 30 and > 50 years of age.

Harrison's 15th Edition. Herpes simplex viruses Epidemiology.

Q. 443. Raised serum level of lipoprotein is a predictor of

(a) Cirrhosis of liver
(b) Rheumatic arthritis
(c) Atherosclerosis
(d) Cervical cancer

Ans. (c)

Note

Raised serum level of lipoprotein is a predictor of ' Atherosclerosis'.

Also see

High serum cholesteriol, especially when associated with a low value of htihg density lipoproteins (HDL), is strongly associated with coronary atheroma. The raised serum lipoproteins are a high risk factor for atherosclerosis.

Ref: Kumar & Clarke, 6th Ed, Pg-801

Q. 444. Which one of the following conditions may lead to exudative pleural effusion?

(a) Cirrhosis
(b) Nephrotic syndrome
(c) Congestive heart failure
(d) Bronchogenic carcinoma

Ans. (d)

Note

From the conditions given above 'the Bronchogenic carcinoma' may lead to exudative pleural effusion.

Also see

An exudative pleural effusion occurs when local factors that influence the formation and absorption of pleural fluid are altered. The leading causes of exudative pleural effusions are bacterial pneumonia, malignancy, viral infection, and pulmonary embolism.

Ref: Harrison 16th Ed, Pg-1566

The cirrhosis, nephrotic syndrome and CCF can cause transudate; however, the bronchogenic carcinoma will be responsible for exudative pleural effusion.

A prospective study of 76 consecutive patients over the age of 40 years, with exudative pleural effusion, was undertaken to determine the common causes of such a clinical condition. Malignant pleural effusions were the most common in this series, found in 49 patients (64.47%), all but one being metastatic from elsewhere. Forty were secondary to a carcinoma of the bronchus, 3 from carcinoma of the breast, 1 each from carcinoma of the ovary, esophagus, and larynx; lymphoma accounted for the remaining 2. Infective causes accounted for 24 of the effusions (31.57%). Of the infections, tuberculosis was the most common, accounting for 17 of the 24. Other infective causes included bacterial empyemas in 4, ruptured amoebic liver abscess in 2, and actinomycosis in 1. Pancreatitis, pulmonary thromboembolism, and a post-cardiotomy syndrome were diagnosed in 1 patient each, while the diagnosis remained unknown in the remaining 5 patients. In 2 patients the diagnosis was made on autopsy.

Ref: Prabhudesai PP, Mahashur AA, Mehta N, Ajay R

Dept of Chest Medicine, KEM Hospital, Parel, Bombay, Maharashtra

Q. 445. A 60 year old man is diagnosed to be suffering from Legionnaire's disease after he returns home from attending a convention. He could have acquired it

(a) From a person suffering from the infection while travelling in the aeroplane.
(b) From a chronic carrier in the convention center.
(c) From inhalation of the aerosol in the air-conditioned room at convention center.
(d) By sharing an infected towel with a fellow delegate at the convention.

Ans. (c)

Note

He could have acquired it 'From inhalation of the aerosol in the air-conditioned room at convention center'.

Also see

Three epidemiological patterns of this disease are recognized:

a. Outbreaks among previously fit individuals staying in hotels, institutions or hospitals where the shower facilities of cooling systems have been contaminated with the organism.

b. Sporadic cases where the source of infection is unknown, most cases involve middle aged and elderly men who are smokers, but it is also seen in children.
c. Outbreaks occurring in immunocompromised patietnts, e.g. on corticosteroid therapy.
Ref: Clincial Medicine by Kumar and Clarke, 6th Ed, Pg-925

Extended information:
Leigonnaire's disease is an acute respiratory infection (pneumonia) caused by bacteria Legionella pneumophilis.
The bacteria has been found in water delivery systems and can survive in the warm, moist, air conditioning systems of large buildings including hospitals. The infection is transimmited through the respirtory route. Persons to person spread have not been proven.

Q. 446. The earliest immunoglobulin to be synthesized by the fetus is
(a) IgA
(b) IgG
(c) IgE
(d) IgM

Ans. (d)
Note
The earliest immunoglobulin to be synthesized by the fetus is 'IgM'.

See Q.No 274

Q. 447. The following are true regarding Lyme's disease, except
(a) It is transmitted by Ixodes tick.
(b) Erythema chronicum migran.
(c) Borrelia recurrentis is the etiological agent.
(d) Rodents act as natural hosts.

Ans. (c)
Note
All above are true regarding Lyme's disease, except that 'Borrelia recurrentis is the etiological agent'.
Also see
a. Is correct
b. Is Correct
c. Is incorrect as the causative agent is Borrelia burgdorferi.
d. Is correct.
Therefore the choice of answer is (c).
Ref: Harrison 15th Ed.

Q. 448. A couple, with a family history of beta thalassemia major in a distant relative, has come for counseling. The husband has HbA2 of 48% and the wife has HbA2 of 2. 3%. The risk of having a child with beta thalassemia major is
(a) 50%
(b) 25%
(c) 5%
(d) 0%

Ans. (d)
Note
The risk of having a child with beta thalassemia major is '0%'.
Also see
Thalassemia is autosomal recessive, wife level of HbA 2 is normal (1-3% CMDT or HPIM 1.5-3.2 %). Husband has thalessemia.Children born can at most be carriers.
Ref: Clinical medicine By Kumar & Clarke, 6th Ed, Pg-440