

GENESIS

Post Graduation Medical Orientation Centre
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FCPS PART-I MOCK TEST-II

SUBJECT : Radiology
PAPER : III

Exam Date	:	Mock-I	:	13-12-20/17-12-20/20-12-20
		Mock-II	:	25-12-20/26-12-20/27-12-20
Exam Time	:	2.30.pm-4.00pm		
Total Number	:	100		

Question 26-50 based on single answer

1. Radiological feature of Left ventricular heart failure

- a) Kerley B Lines
- b) Cardiomegaly
- c) oligemic Lung field
- d) Increased flowing of upper lobe veins.
- e) Pleural effusion

2. Rubella virus

- a) Is a member of togoviridae family
- b) Called measles
- c) Infection in childhood may cause mental retardation
- d) One attack gives lifelong protection
- e) Humans are natural host

3. Parasite that transmit through placenta –

- a) Plasmodium falciparum
- b) Toxoplasma gondii
- c) W. bancrofti.
- d) T. cruzi
- e) Leishmania donovani

4. Clinical manifestation of ascariasis –

- a) Loeffler's syndrome
- b) IDA
- c) Ground itch.
- d) Intestinal obstruction
- e) Obstetrical jaundice

5. Features of Down's syndrome include

- a) Trisomy of chromosome
- b) Normal parental karyotype
- c) More affected female than male
- d) splenomegaly
- e) VSD

6. Following organs are vulnerable to radiation hazards

- a) Testes
- b) Heart
- c) Uterus
- d) Ocular lens
- e) Thyroid

7. Tumor markers used for screening –

- a) Calcitonin for anaplastic carcinoma of thyroid.
- b) alpha-fetoprotein for non seminomatous germ cell tumor of testis
- c) CA- 125 for breast cancer
- d) CA- 19.9 for colon cancer
- e) Neuron specific enolase for osteochondroma

8. Complement activation is triggered by

- a) IgM
- b) IgG
- c) cobra venom
- d) Exotoxin
- e) Decay-accelerating factor

9. Agents causing contraction of mesangial cells are

- a) Dopamine
- b) Angiotensin
- c) Endothelin
- d) ANP
- e) CAMP

10. K⁺ secretion by renal tubules is stimulated by

- a) Hypernatremia
- b) Aldosterone
- c) Hypokalemia
- d) Alkalosis
- e) Increased distal tubular flow rate

11. Slowly acting neurotransmitters are

- a) Nitric oxide
- b) TSH
- c) Insulin
- d) GABA
- e) Thyrotropin

12. Destruction of anterior pituitary causes

- a) Amenorrhea
- b) A rise in basal metabolic rate
- c) DM
- d) Failure of ovulation
- e) impaired ability to survive in stress state.

13. Luteinizing hormone is necessary for

- a) ovulation
- b) Testosterone secretion.
- c) Menstruation
- d) Stimulating estrogen production.
- e) Lactation

14. Physiological effect of thyroid hormone

- a) Increase in number of β adrenergic receptor.
- b) Inhibition of Lipolysis.
- c) Decreased rate of carbohydrate absorption
- d) Stimulation of O₂ consumption by metabolically active cells
- e) Increase in protein breakdown.

15. The following enzyme deficiency leads to hemolytic anemia

- a) LDH
- b) pyruvate kinase
- c) pyruvate dehydrogenase
- d) NADPH oxidase
- e) Glucose 6 phosphate dehydrogenase

16. The plasma prothrombin time is increased in

- a) Hepatocellular carcinoma.
- b) Haemophilia.
- c) Following splenectomy
- d) In obstructive jaundice
- e) In Christmas disease

17. Primary factors of coagulation are

- a) Prothombin
- b) Na⁺ ion
- c) Factor IX
- d) Factor Vill
- e) Fibrinogen

18. Anaerobic glycolysis –

- a) Occurs in cells without mitochondria
- b) isnot important for RBC produces Lactate
- c) Produces ATP
- d) produces Lactate
- e) Produces NADPH

19. Radiological findings in rickets

- a) Widened growth plate
- b) decreased bone density
- c) Deformity of bone due to softening
- d) Epiphysis is widened
- e) Rachitic rosary

TTTF (Metaphysis)T (Ref: Apleys orthopedics)

20.A 8 old boy is being treated for rickets, which of the following investigations shows the earliest evidence for healing?

- a) Serum Ca.
- b) Serum phosphates
- c) Radiological examination of long bones
- d) Serum ALP
- e) serum protein

FFTF

21. The serum iron is often raised in –

- a) Anemia of chronic disorders
- B) β-thalassemia
- c) Iron deficiency anemia.
- d) sideroblastic anemia.
- e) congenital spherocytosis

FTFTF[Ref: Hoffboand Hematology]

22. Coomb's test is positive in

- a) Autoimmune hemolytic anemia.
- b) Transfusion reaction.
- c) cold agglutinin disease
- d) hemophilia
- e) Mismatched blood transfusion.

- TTTFT [Ref: Hoffbrand hematology]

23. Sources of ammonia are

- a) Purines
- b) phosphate
- c) Glutamine
- d) Amines
- e) Glycosaminoglycans

24.which of the following radiological sign will be present in a young lady with symptoms suggestive of pulmonary embolism

- a) Hampton's hump
- b) westermark sign
- c) Fleischner sign
- d) Owl's eye sign
- e) Bird's beak sign

25. Influenza A virus

- a) may undergo antigenic shift and antigenic drift
- b) May cause pandemic
- c) Pneumonia is associated with secondary bacterial infections
- d) Viremia is common
- e) Vaccination gives lifelong protection

Each question below contains five suggested answers- choose the one best response to each question (26-50)

26. Which of the following is the best radiological investigation in case of suspected splenic rupture

- a) CT scan
- b) MRI
- c) USG
- d) x-ray
- e) color doppler

27. Hyper acute rejection –

- a) occurs 5-15 days
- b) vasculitis along with thrombosis occur.
- c) Preform antibody is formed
- d) complement activation occur
- e) Cellular infiltration occur

28. Which of the following condition gives the characteristic Radiological finding"bone within bone" appearance-

- a) Osteogenesisimperfecta
- b) Osteopetrosis
- c) Osteosarcoma
- d) Scurvy
- e) Rickets

29. Radiological appearance of "Thimble bladder" is been in

- a) Cystitis cystica
- b) Chronic tuberculous cystitis
- c) Neurogenic bladder
- d) Acute tuberculous cystitis
- e) pyelonephritis

30. Earliest radiological sign of pulmonary venous hypertension in chest x-ray is -

- a) cephalization of pulmonary vascularity
- b) pleural effusion
- c) Kerley B lines
- d) Alveolar pulmonary edema.
- e) consolidation

31. Most common type of thyroid carcinoma –

- a) papillary
- b) follicular
- c) medullary
- d) unclassified
- e) Anaplastic

32. Which arrhythmia develops most often oftenly in patient with mitral stenosis

- a) Atrial fibrillation.
- b) Atrioventricular block
- c) supraventricular tachycardia.
- d) ventricular fibrillation.
- e) Wolf - parkinson - white syndrome .

33. While advancing there is increased chance of developing cancers. Tumorigenesis in aging is to due

- a) Telomerase reactivation.
- b) Telomerase activation.
- c) Increased apoptosis
- d) suppression of proto -oncogenes.
- e) Free radicals

34. A 4 year old girl presents with symptoms of right sided Loin pain, Lethargy and hematuria. On Examination she has pyrexia and has a large mass in the right upper quadrant . The mostly diagnosis -

- a) Renal cortical adenoma.
- b) Nephroblastoma
- c) Grawity tumor
- d) squamous cell carcinoma of kidney
- e) Renal cell carcinoma .

35. Which of the following organelles plays a pivotal role in Apoptosis

- a) Mitochondria.
- b) Endoplasmic reticulum
- c) Nucleus
- d) Ribosome
- e) Golgi body

36. At autopsy a patient with known severe & atherosclerosis and occlusion of middle cerebral artery is found to have large cystic lesion in the parietal Lobe. This finding most likely represents

- a) Liquefactive necrosis
- b) Apoptosis
- c) Atrophy
- d) coagulative necrosis
- e) metaplasia

37. Transcription refers to

- a) the process where an mRNA is used as a template for protein production
- b) the process where DNA sequence is copied into RNA for the purpose of gene expression
- c) the process where DNA wraps around histones to form nucleosome.
- d) the process of replication of DNA prior to cell division
- e) its a part of cell division.

38. The major lipoprotein source of cholesterol used in cells is

- a) chylomicron
- b) IDLS
- c) Albumin bound fatty acid
- d) LDL
- e) HDL

39. The cross bridges of the sarcomere in skeletal muscle are made up of

- a) Actin
- b) Myosin
- c) Troponin
- d) Tropomyosin
- e) Myelin

40. In human males testosterone is produced mainly by

- a) Leydin cell
- b) Sertoli cell
- c) Seminiferous tubules
- d) Epididymis
- e) Vas deferens

41. Maximum absorption of short chain fatty acids produced by bacteria occurs in

- a) Stomach
- b) Duodenum
- c) Jejunum
- d) Ileum
- e) Colon

42. Blood in which of the following vessels normally has the lowest PO_2

- a) Maternal artery
- b) Maternal uterine vein
- c) Maternal ovarian vein
- d) Umbilical artery
- e) umbilical vein

43. Which parasite cause pernicious anemia

- a) Diphylobothrium latum
- b) E. Coli
- c) E. granulosus
- d) A. lumbricoides
- e) T. solium

44. The most common cause of urinary retention

- a) Benign prostatic hyperplasia
- b) Phimosis
- c) Stone
- d) Stricture
- e) worm

45. During the healing of bone fracture a hard callus is formed by

- a) Osteoblasts
- b) Osteoclasts
- c) Chondrocytes
- d) Osteocytes
- e) Fibroblasts

46. Which of the following characteristics is shared by simple and facilitated diffusion of glucose

- a) Occurs down electrochemical gradient
- b) IS saturable
- c) requires metabolic energy
- d) Is inhibited by the presence of galactose
- e) Requires a Na^+ Gradient

47. A 35 yrs old male had a history of heart burn, regurgitation of sour brush, dyspnea burning esophageal pain and slowly but progressive dysphagia. He was admitted to the emergency room because of lobar pneumonia. The most possible cause of his pneumonia is due to aspiration and can be attributed to which of the following condition –

- a) Esophageal atresia
- b) Reflux oesophagitis
- c) Sliding hiatal hernia.
- d) Esophageal diverticulum
- e) Carcinoma oesophagus

48. The heart failure cells are

- a) Alveolar lining cell
- b) macrophage
- c) polymorphonuclear cell.
- d) eosinophils
- e) Basophils

49. Pathognomonic hallmark of gout –

- a) synovitis
- b) tophi
- c) swan neck deformity
- d) syndesmosis
- e) polyarthritis

50. Incubation period of mumps

- a) 10-50 days
- b) 3 - 6 months
- c) 18- 21 days
- d) 1-3 wks
- e) 1-3 days

Radiology Mock-II, Paper-II

1. TTFTF [O'Rourke R. A Radiology chapter-17]

Also Know :Boot shaped heart - TOF

Bat wings appearance - pulmonary edema

2. TTTTT [Ref: Lang 14th /P-324,325]

3. TTFTT (Ref: Lange 14th P-34)

4. TTFTT (Ref: K DC)

5. TTFTT (Ref: Robbin's 9th P-161-163)

6. TTFTT [Ref: Robbins 9th /P-429]

7. [Ref: Robbin's 377 table 7:12]

8. TTFTF (Ref: Lange 14th-P- 541)

9. FTFTF (Ref: Ganong's physiology 25th).

10. FTFTT (Ref: Ganong physio 25th page-688)

11. FTFTT (Ref: Guyton and Hall P-585)

12. TFF TT [Ref: Rodde P-205]

13. TTTTF (Ref: Guyton P-1139)

14. TTFTT (Ref: Ganong-physio 25th p-340)

15. FTFTT (Ref: Davidson - page_1027)

16. TFF TF (Ref: De Gruchi Hematology)

17. TTTTF (Ref: Guyton P-484)

18. TTFTF (Ref: ABC Biochemistry).

19. TTTF (Metaphysis)T (Ref: Apleys orthopedics)

20. FTFTF

21. FTFTF [Ref: Hoffboand Hematology]

22. TTTTF [Ref: Hoffbrand hematology]

23. TTFTF (Ref: ABC biochemistry P-290)

24. TTTTF

[chilesc, Gulla ŞM. Chapter-4 Radiology of chest]

Explanations.

The cone shaped area of pulmonary infarction is hampton's hump. An area of radiolucency, corresponding to diminished pulmonary vasculantcy called Westermarck sign. There may also increase in size of pulmonary artery called Fleischner signs

25. TTTTF [Ref: Lange 14th /P-311,315]

26.A(Ref: Bailey and Love 27th)

27. C[Ref: Davidson 23rd /P-88, Khalequepathology]

28. B (Clinical imaging by Ronald p-1088)

29. B(Bailey and Loves short practice of surgery)

30. A(Textbook of Radiology And Imaging by David sutton + Atlas of pulmonary vascular Imaging by B.A)

31. A [Ref: Davidson 23rd]

32. A [Ref: Davidson 23rd edition]

33. A Explanation.- Telomerase is a ribonucleoprotein that is expressed in stem cells and most cancer cells but not in somatic cells. More than 90% of human cancers express high levels of telomerase that

prevent telomere shortening to critical level and allow indefinite cell posiferation

34. B Explanation 8- Nephroblastoma is also called wilm's tumor

[Khaleque pathology]

35. A[Ref- Robbin's Pathology]

36. A [Ref: Robbin's pathology]

37. B [Ref: Ganong Physiology 25th)

38. D [Ref: ganong Physiology 25th]

39. B [Ref: ganong Physiology 25th]

40. A [Ref: Ganong Physiology 25th]

41. E [Ref: Ganong Physiology 25th/Chp-06]

42. D [Ref: Ganong Physiology 25th/Chp-33]

43. A [Ref: Lang micro 14th]

44. A [Baily & Love]

45. A EXP: Soft callus is formed by chondrocytes and fibroblasts .and hard callus is formed by osteoblast .hard callus is visible in X-ray for fracture

46. A [Ref: BRS Physiology/P-28]

EXP :Both diffusion occurs at downhill gradient

.Fascilated diffusion is saturable and is inhibited by galactose .Energy needed is carrier mediated transport

Explanation. The 1st radiological sign of pulmonary venous hypertension is cophalization of pulmonary vessel due to pulmonary vein and artery dilatation.

47. B [Ref: Davidson 23rd]

48. B [Ref: Lange 14th]

49. B [Ref: Davidson 23rd]

50. C [Ref-Khaleque pathology]