

# GENESIS

Post Graduation Medical Orientation Centre  
230, New Elephant Road (4<sup>th</sup> floor), Katabon More, Dhaka-1205  
Phone: 01404-432 530, 01404-432 515

## FCPS PART-I MOCK TEST-I

SUBJECT : Radiology & Imaging  
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. Specific osteomyelitis is caused by**

- a) Mycobacterium tuberculosis
- b) Streptococcus pyogenes
- c) E. coli
- d) Treponema pallidum
- e) Actinomycosis

**2. Common sites of metastasis of skeletal system are**

- a) Pelvis
- b) Skull
- c) Phalanges
- d) Tibia
- e) Ribs

**3. Radiological features of osteosarcoma are**

- a) Presence of Codman's triangle
- b) Soap bubble appearance
- c) Cut onion appearance
- d) Sun ray spicule
- e) May be associated with pathological fracture

**4. Characteristics of reversible cell injury are**

- a) Decrease  $\text{Na}^+\text{-K}^+$  pump activity
- b) Increase influx of  $\text{K}^+$ ,  $\text{Ca}^{++}$  and water causing cellular swelling
- c) Endoplasmic reticulum swelling
- d) Myelin figures
- e) Appearance of blebs over cell

**5. Steatosis is seen in**

- a) Heart
- b) Lung
- c) Intestine
- d) Kidney
- e) Liver

**6. Features of apoptosis is**

- a) Reduced in cell size
- b) Disruption of plasma membrane of cell
- c) Inflammation of adjacent tissue
- d) Fragmentation of cell nucleus
- e) Enzymatic digestion of cellular contact

**7. Free radicals are generated by**

- a) During inflammation
- b) By glutathione
- c) By ceruloplasmin
- d) By enzymatic metabolism of drugs
- e) During normal metabolic process

**8. Dystrophic calcification is associated with**

- a) Tubercular lymph node
- b) Carcinoma of thyroid
- c) Parathyroid adenoma
- d) Caseous necrosis
- e) Sarcoidosis

**9. The sites of metastatic calcification is**

- a) Stomach
- b) Lungs
- c) Cornea
- d) Blood vessels
- e) Kidney

**10. Products of mast cell degranulations are**

- a) Leukotrienes
- b) Histamine
- c) Collagen
- d) Serotonin
- e) Tryptase

**11. Wound healing is delayed in**

- a) DM
- b) Infection
- c) Vit C excess
- d) Protein energy malnutrition
- e) Poor blood supply

**12. Factor predisposing to deep vein thrombosis**

- a) Prolonged anesthesia
- b) Immobilization
- c) Burn
- d) Aspirin
- e) Hypocoagulable state

**13. Fate of thrombus**

- a) Resolution
- b) Fixed
- c) Contracture
- d) Recanalization
- e) Embolization

**14. Which are the autosomal dominant disorder involving the nervous system**

- a) Cystic fibrosis
- b) Tuberculo sclerosis
- c) Myotonic dystrophy
- d) Friedreich ataxia
- e) Neurofibromatosis

**15. Example of trisomy are**

- a) Turner's syndrome
- b) Down's syndrome
- c) Edward's syndrome
- d) Klinefelter's syndrome
- e) Marfan's syndrome

**16. Primary malignant tumors of bone**

- a) Osteosarcoma
- b) Osteiclastoma
- c) Giant cell tumor
- d) Multiple myeloma
- e) Ewing's sarcoma

**17. The following are precancerous condition**

- a) Cervical dysplasia
- b) Benign prostatic hyperplasia
- c) Leukoplakia
- d) Metaplasia
- e) Atrophy

**18. Primary bone tumor metastasis to brain**

- a) Lung
- b) Breast
- c) Heart
- d) Spleen
- e) Colon

**19. Locally malignant tumors are**

- a) Giant cell tumor
- b) Rodent tumor
- c) Paget's disease
- d) Ewing's sarcoma
- e) Osteoblastoma

**20. Following are obligate intracellular organism**

- a) Mycobacterium tuberculosis
- b) Chlamydia
- c) Rickettsia
- d) Brucella
- e) Yersinia

**21. Followings are RNA non enveloped virus**

- a) Picorna virus
- b) Corona virus
- c) Rhinovirus
- d) Rota virus
- e) Pox virus

**22. The following graft are rejected**

- a) Autograft
- b) Isograft
- c) Allograft
- d) Xenograft
- e) Corneal graft

**23. MHC class II molecules are expressed**

- a) Dendritic cell
- b) Fibroblast
- c) Macrophage
- d) Platelet
- e) RBC

**24. Factor influencing rennin secretion**

- a) Decreased blood pressure
- b) Salt depletion
- c) Potassium
- d) Vasopressin
- e) ADH

**25. The renin angiotensin –aldosterone system regulates**

- a) Potassium balance
- b) Sodium balance
- c) Fluid volume
- d) Calcium balance
- e) Nitrogen balance

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

**26. Caseous necrosis can be seen in.**

- a) Tuberculoid leprosy
- b) Erythema nodosum
- c) Tuberculosis verrucosa cutis
- d) Sarcoidosis
- e) Erythema induratum

**27. Arachidonic acid metabolites causing vasoconstriction.**

- a) PGE<sub>2</sub>
- b) Thromboxane A<sub>2</sub>
- c) PGE<sub>1</sub>
- d) Leukotrienes B<sub>4</sub>
- e) PGI<sub>2</sub>

**28. Granulomatous disease are.**

- a) Silicosis
- b) Sarcoidosis
- c) Candidiasis
- d) Aspergillosis
- e) Berylliosis

**29. Hyperplasia is.**

- a) Seen in organ made of permanent cell
- b) A reversible non adaptive change
- c) Never associated with hypertrophy
- d) Seen in heart muscle
- e) May lead to malignancy

**30. Which one is false for Listeria monocytogenes.**

- a) Are gram positive organism
- b) Produces alpha haemolysis on blood agar media
- c) Are non motile
- d) Can cause neonatal infection
- e) Produce exotoxin

**31. Sterol nucleus containing hormones are**

- a) Cortisol
- b) Cholesterol
- c) Bile acids
- d) Insulin
- e) Growth hormone

**32. Most common form of nephritic syndrome in children**

- a) Minimal change disease
- b) Membranous glomerulonephritis
- c) IgA nephropathy
- d) Focal segmental glomerulonephritis
- e) Mesangiocapillary glomerulonephritis

**33. If cervical carcinoma extends beyond two pelvis or has involved the mucosa of the bladder or rectum then it will be**

- a) Stage -0
- b) Stage -I
- c) Stage -III
- d) Stage -II
- e) Stage -IV

**34. Most common type of bone tumor**

- a) Primary
- b) Benign
- c) Malignant
- d) Multiple myeloma
- e) Metastasis

**35. Which one of the following renal stone is radiolucent stones**

- a) Urate stone
- b) Calcium oxalate stone
- c) Potassium carbonate stone
- d) Mixed stone
- e) Calcium urate stone

**36. Most common cause of osteoblastic metastases**

- a) Prostate carcinoma
- b) Breast carcinoma
- c) Transitional cell carcinoma
- d) Neuroblastoma
- e) Medulloblastoma

**37. A cardiac mass of an infant on microscopic examination revealed "spider cell". What type of tumor is**

- a) Leiomyoma
- b) Myxoma
- c) Rhabdomyoma
- d) Fibroma
- e) Medulloblastoma

**38. The hallmark of acute inflammation is**

- a) Increased blood flow
- b) Rubor, calor, dolor
- c) Vascular stasis
- d) Increased vascular permeability
- e) Cellular swelling

**39. Most common location of secondary tuberculosis is**

- a) Hilar area
- b) Base
- c) Periphery
- d) Apex
- e) Center

**40. Marker for rhabdomyosarcoma**

- a) Desmin
- b) Keratin
- c) Collagen
- d) Synapsin
- e) Synaptophysin

**41. Second primary tumor of head and neck most commonly suspected is malignancy of**

- a) Oral cavity
- b) Nasopharynx
- c) Paranasal sinus
- d) Skull bone
- e) Larynx

**42. Earliest changes of neoplastic transformation as soon at microscopic level is called**

- a) Hyperplasia
- b) Metaplasia
- c) Dysplasia
- d) Atrophy
- e) Carcinoma in situ

**43. Most common cause of bronchopneumonia**

- a) Streptococcus pneumoniae
- b) Klebsiella pneumoniae
- c) Staphylococcus aureus
- d) Haemophilus influenza
- e) Moraxella catarrhalis

**44. Most common type of cardiomyopathy**

- a) Dilated cardiomyopathy
- b) Hypertrophic cardiomyopathy
- c) Restrictive cardiomyopathy
- d) Arrhythmogenic
- e) Unclassified cardiomyopathy

**45. A 38 yr old female complains fatigue and pruritus. She is found to have high serum alkaline phosphates and slightly elevated serum bilirubin level and serum antimitochondrial antibodies are present. A liver biopsy reveals marked lymphocytic infiltrate in the portal tracts. Occasional granuloma are also seen. The most likely diagnosis is**

- a) Primary sclerosing cholangitis
- b) Primary biliary cirrhosis
- c) Viral hepatitis B infection
- d) Impacted gall stone
- e) Hepatic steatosis

**46. A 4 yr old boy presents with prolonged bleeding after operation. A complete blood count is done. His prothrombin time and activated thromboplastin time are normal. What is positive**

- a) Haemophilia -A
- b) Haemophilia -C
- c) Von-willebrand disease
- d) Idiopathic thrombocytopenic purpura
- e) Thalassemia

**47. Most common site of multiple myeloma**

- a) Skull
- b) Vertebrae
- c) Ribs
- d) Femur
- e) Scapula

**48. Which one is the most common type of classical Hodgkin lymphoma**

- a) Nodular lymphocyte predominant Hodgkin's lymphoma
- b) Nodular sclerosis
- c) Lymphocyte rich
- d) Mixed cellularity
- e) Lymphocyte depletion

**49. The classic hair-on-end appearance is seen on lateral skull x-ray in**

- a) Multiple myeloma
- b) Thalassemia
- c) Rickets
- d) Scurvy
- e) Hemophilia

**50. During sleep, there is increase of plasma level of which hormone**

- a) ADH
- b) Insulin
- c) Adrenaline
- d) Testosterone
- e) Parathyroid hormone

## Radiology Mock-I, Paper-II

1. TFFT [Ref: Apley's orthopedics]

Explanation :

Specific osteomyelitis is caused by M.tuberculosis.T.Pallidum and fungal case .Rest all not specific

2. TTTFT (Robbin's pathology)

Explanation

Common site of bone metastasis are

- a) vertebra
- b) Skull
- c) Ribs
- d) Sternum
- e) Pelvis

3. TFFT [Ref: Apley's orthopedics]

Explanation : Soap bubble appearance is seen in giant cell tumor and cut onion appearance is seen in ewing's sarcoma

4. TF(Influx of  $Ca^{++}$  and  $Na^{+}$  and eflux of  $K^{+}$ )TT(both case )  
F(Loss of blebs) (Khaleque pathology)

5. TFFT [Ref: Robbin's 9<sup>th</sup> P-845,846]

Explanation :

Seen in –liver ,heart ,kidney ,muscle

6. TTTTF(It occurs in necrosis ) [Ref: Robbin's 9<sup>th</sup> P-40,41,58]

7. TFFT [Ref: Robbin's 9<sup>th</sup> P-407,48]

8. TTTTF [Ref: Robbin's 9<sup>th</sup> P-65+690]

9. TTTT [Ref: Robbin's 9<sup>th</sup> P-65]

10.TTTFT [Ref: Robbin's 9<sup>th</sup> P-83,table 3.4]

11. TTTFT[Ref: Robbin's+ Khaleque pathology ]

12. TTTTF(Hypercoagulable state) [Ref: Robbin's 9<sup>th</sup> P-126]

13. TFFT [Ref: Robbin's 9<sup>th</sup> P-125]

14. F( Autosomal recessive disorder)TTF  
(autosomal recessive disorder)T

15. FTTT(47XXY-BRS genetics ) F[Ref: Robbin's 9<sup>th</sup> P-161& BRS-Genetics ]

16. TFFT[Ref: Robbin's 9<sup>th</sup> P-1197]

17. TF(It is not precancerous –remember )TTF[Ref: Robbin's 9<sup>th</sup> P-279]

18. TTTFT (Robbin's pathology)

19. TTTTF (Osteoclastoma) [Ref: Robbin's Path +many source

20. FTTF (Lange microbiology)

21. TTTTF (DNA Virus )

[Corona is enveloped RNA virus ](Lange Microbiology)

22. FTTF [Smiddy Q-23.7]

23. TTTTF[Lange 14<sup>th</sup> P-537]

24. TTTT(Ganong Physiology)

25. TTTTF(BRS Physiology)

26. C[Ref: Khalequepathology ]

27. B[Ref: Robbin's 9<sup>th</sup> P-84]

28. C(Berylliosis and silicosis are pneumoconiosis ) [Ref: Robbin's 9<sup>th</sup> P-98]

29. E (fertile soil of malignancy ) [Ref: Robbin's 9<sup>th</sup> P-35,36]

30. B(beta haemolysis)

[Lange 14<sup>th</sup> P-144,145]

Explanation –During sleep, increased hormone are-ADH, Prolactin ,growth hormone, metatonin ,LH.(BRS Physiology)

31. A [Ref: Guyton 13<sup>th</sup> P-927]

Sterol nucleus containing hormones are cortisol, aldosterone, estrogen, progesterone, testosterone, vitamin D, deoxyprogesterone, corticosterone.(Cholesterol and bile acid are not hormone)

32. A [Ref: Khalequepathology ]

Explanation :In case of adult most common form of nephritic syndrome is membranous glomerulonephritis

33.E[Ref: Khalequepathology+it's previous question ]

Explanation

Stage 0- carcinoma in situ

Stage II-Extends beyond cervix, vagina but not lower third. Not into the pelvic wall

Stage III-Extends to pelvic wall and lower third of vagina

Stage IV-Extends beyond the pelvis or has involved the mucosa of bladder or rectum

34. E [Ref: Apley's orthopedics]

Explanation : Most common type of bone tumor is metastasis .Primary bone tumor is of two types –benign and malignant .Most common type benign primary bone tumor is osteochondroma and most common type of malignant primary bone tumor is osteosarcoma

35. A

Explanation

Only pure urate stone (uric acid) is radiolucent .Rest are radiopaque

36. A[Ref: Robbin's Pathology]

37. C

38. D[Ref: Robbin's Pathology]

39. D[Ref: Robbin's Pathology]

Most common site of reactivation of TB is apex of lung and primary TB is common at lower lobe of lung

40. A (Wikipedia+previous question)

41. A(Wikipedia)

42. C[Ref: Robbin's Pathology]

43. C Streptococcus pneumoniae cause lobar pneumonia not bronchopneumonia.

44. B(Davidson's 23rd+previous question)

45. A(Bailey and love+it's previous question)

46. C [Ref: Hoffbrand Hematology]

Explanation :In VWD ,PT and activated thromboplastin time is normal but bleeding time is prolonged ,Factor VIII is normal or Low

47. B [Ref: Apley's orthopedics +it's previous ques]

Explanation

Multiple myeloma commonly affects vertebrae (66%),ribs(45%) skull(40%),shoulder(40%) pelvis (30%)

48. B [Ref: HoffbrandHematology+it's previous question]

Explanation : Hodgkin lymphoma includes 4- nodular sclerosis (70%),mixed cellularity(20%),lymphocyte depleted(<5%).Lymphocyte rich uncommon

49. B [Ref: Apley's orthopedics]

50. A