

30-12-2022

II-MBBS

01231 A1+01231 A2

Second M.B.B.S. (Main) Examination (New Scheme)

December - 2022

MICROBIOLOGY

Paper-First

Time: Three Hours

Maximum Marks: 100

Attempt all questions in both sections

(Use separate answer book for each section)

Section-A

1. Fill in the blanks:

6 x 1 = 06

- ✓ a) Father of microbiology _____.
- b) Father of bacteriology _____.
- c) Side chain theory of antibody production was proposed by _____.
- ✓ d) Polymerase chain reaction was invented by _____.
- ✓ e) Organ of adhesion in bacteria is _____.
- f) Gram stain was originally devised by _____.

2. Answer the followings (Multiple Choice Questions):

4 x 1 = 04

- ✓ i) Peptidoglycan layer is thicker in:
- a) Gram negative bacteria ✓ b) Gram positive bacteria c) Parasites d) Fungi
- ii) All of the following are spore forming bacteria except:
- a) Clostridium botulinum b) Bacillus subtilis c) Bacillus anthracis ✓ d) Klebsiella
- iii) India ink staining is used to demonstrate:
- a) Cell Wall ✓ b) Bacterial Capsule c) Bacterial Flagella d) Bacterial Spore
- iv) Generation time of mycobacterium tuberculosis is about:
- a) 20 Seconds b) 20 Minutes
- ✓ c) 20 Hours d) 20 Days

3. Clinical case study:

15

✓ A 30 year old male presented with a rash on his chest. He started with one oval shaped purplish area which he thought was a bruise but later on developed multiple new lesions. The growths did not itch or bleed, but he continued to get new ones and existing ones were becoming larger. He had no history of allergies. He has history of weight loss of 10 kg in the past 2 months, approximately 5 weeks of diarrhoea and a 2 week history of sore throat.

- c) Write pathophysiology of this disease. 05
- d) Relevant laboratory investigations. 05
- e) Enumerate complications. 02
4. Write short notes on (Any five): 5 x 2 = 10
- a) Silicosis
- b) Microscopic features of papillary carcinoma thyroid
- c) CIN d) Ketone bodies in urine
- e) Rhodent ulcer f) Giant cell tumour of bone
5. Explain briefly (Any three): 3 x 5 = 15
- a) RPGN
- b) CSF findings in pyogenic meningitis
- c) Prognostic factors in breast carcinoma
- d) Enzymes in acute myocardial infarction

Section-B

6. A 32 year old female presented with malaise, easy fatigability, anorexia, nausea & vomiting for more than a week. She also complains of passing dark coloured urine. On examination - yellowness of eyes (Icterus) seen, she had a history of blood transfusion 2 months back.
- a) What is your probable diagnoses? 02
- b) Lab investigations including serological markers to be done in this patient. 07
- c) Morphologic findings in this disease. 07
- d) Potential outcomes of this disease. 04
7. Write short notes on (Any five): 5 x 2 = 10
- a) ARDS b) Endometrial hyperplasia
- c) Morphology in hypertrophic cardiomyopathy
- d) Long term complications of diabetes mellitus
- e) Teratoma testis f) Dysgerminoma
8. Explain briefly (Any four): 4 x 5 = 20
- a) Molecular classification of carcinoma breast
- b) Pathogenesis of rheumatoid arthritis
- c) Pathogenesis of colorectal carcinoma
- d) Coeliac sprue
- e) Pleomorphic adenoma