

Total No. = 03 pages

Q.P. Code: MBN206

M.B.B.S. 2nd Prof.
(New Scheme w.e.f. 2019 admission onwards)
BF/2023/06

Microbiology – B

M.M. : 100

Time : 3 Hours(First 30 Min. for MCQs)

- Note: 1. **Use OMR Sheet to answer Multiple Choice Questions(MCQs).**
2. Attempt all questions. Illustrate your answers with suitable diagrams
3. **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/PROVIDED**
4. **The student must write Q.P. Code in the space provided on OMR Sheet and the Title page of the Answer Book.**

Q.1 MCQs (Attempt on OMR sheet)

[1x20]

Tick the most appropriate answer:

1. A serum sample from 23 year old female has tested positive for hepatitis B. Her friend is requested you to disclose the report to him without her consent. This is known as ?
 - a. Breach in confidentiality
 - b. Maintain of beneficence
 - c. Maleficence
 - d. Autonomy
2. Characteristic anaerobic bacterial infections is
 - a. Foul smelling discharge
 - b. Deep seated
 - c. Gas in tissue
 - d. All of the above
3. A 30 year old man presented to OPD with a black eschar had formed on the dorsal surface of the hand. A superficial tangential escharectomy was performed for a suspected cutaneous anthrax. What is the other name of this disease?
 - a. Wool sorter's disease
 - b. Hide porter's disease
 - c. Darling's disease
 - d. Hansen's disease
4. A 28 year old patient resident of West Rajasthan presented with a lesion located on the upper lip. The biopsy revealed amastigote forms in the macrophages suspected to be of oriental sore. Which of the following is the causative agent:
 - a. Leishmania mexicana
 - b. Leishmania braziliensis
 - c. Leishmania tropica
 - d. Leishmania chagasi
5. The sequence of assessment of affective domains is:
 - a. Knows, knows how, shows how, Does
 - b. Knows, Shows how, Does, Knows how
 - c. Shows how, knows how, Knows, Does
 - d. Does, Shows how, Knows how, Knows
6. A sexually active 28 year old woman comes to the casualty with 2 day history of pain near the genitals. Pelvic examination shows shallow, small, extremely tender ulcers with red bases in the vulvar and vaginal regions. A Tzanck smear shows the presence of multinucleated giant cells. Which of the following infectious agents is the most likely cause of these findings?
 - a. Candida albicans
 - b. Chlamydia trachomatis
 - c. Herpes simplex virus
 - d. Treponema pallidum
7. A 55 year old male reports to OPD with a 3 day history of painful rash over his left back preceded by severe pain for few days in the same area. On examination several clustered lesions which had erythematous base and crushed in a band like area seen on the left flank. Which of the following is the most probable agent.
 - a. Cytomegalovirus
 - b. Epstein-Barr virus
 - c. Human papillomavirus
 - d. Varicella-zoster virus

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8. A 40 year old male is suspected to have malaria. He is treated with a full course of chloroquine. Later he continued to have fever and developed encephalitis. A peripheral blood smear shows ring multiple forms in her erythrocytes. Which of the following species of plasmodium is most likely cause of the disease?
- | | |
|-------------------------|------------------------|
| a. <i>P. falciparum</i> | b. <i>P. knowlesii</i> |
| c. <i>P. malariae</i> | d. <i>P. vivax</i> |
9. A 30 year old male was admitted with facial swelling and pain during the past week. He was diabetic for 10 years. There was expulsion of black eschar from the left nose. On microscopic examination of nasal tissue showed broad, nonseptat hyphae with branches at right angles. Which of the following is the most likely cause?
- | | |
|--------------------------------|-------------------------------|
| a. <i>Histoplasma oryzae</i> | b. <i>Rhizopus oryzae</i> |
| c. <i>Sporothrix schenckii</i> | d. <i>Torulopsis glabrata</i> |
10. A 22 year old promiscuous female with a history of multiple sexual partners visited the OPD with complaints of mucopurulent discharge, urethral and lower abdominal pain for the past one month. Gram stain of urethral discharge revealed pus cells > 20/OIF with unique compact inclusion bodies. Which of the following is the most probable diagnosis and true about the inclusion body?
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|--|
| a. Lymphogranuloma venerum with Miyagawa corpuscle |
| b. <i>Chlamydia trachomatis</i> with replicating reticulate (H-P) body |
| c. <i>Chlamydia psittaci</i> with LCL elementary body |
| d. <i>Mycoplasma genitalium</i> with intracellular cowdry body |
11. A 5 year old child presented with fever, neck rigidity, vomiting, tonic clonic seizures. She also developed sore throat with cough and chest xray showed bilateral pneumonia. A throat swab was subjected to gram staining showed pleomorphic gram negative coccobacilli and culture of the organism required essential factors in the media. Which of the following statement is true for the growth of such organism?
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|--|
| a. Coagulase for the growth of <i>staphylococcus aureus</i> |
| b. Haemolysin for the growth of <i>streptococcus pneumoniae</i> |
| c. Nicotinamide adenine dinucleotide for growth of <i>haemophilus influenzae</i> |
| d. Haemoglobin for the growth of <i>Escherichia coli</i> |
12. A 10 day old newborn presented with fever 3 days, nasal congestion and discharge per both eyes. The infant was born by vaginal delivery without premature rupture of me membrane at the gestational age of 38 weeks. Chest x-ray demonstrated hyperaeration and peri-hilar infiltration. Nasopharyngeal aspirate on indirect immunofluorescence detected coarse elementary bodies in the cytoplasm. What is the most probable diagnosis?
- | | |
|-----------------------------------|-------------------------------------|
| a. <i>Mycoplasma pneumoniae</i> | b. <i>Chlamydiae trachomatis</i> |
| c. <i>Legionella pneumophilla</i> | d. <i>Chlamydomytila pneumoniae</i> |
13. A 50 year old male environmentalist by profession was admitted to ICU after he returned from a prolonged stay at rural part of Manipur. He developed fever with warty skin lesions, weight loss, acute breathlessness, hepatosplenomegaly. Histopathological staining of tissue sections showed elliptical yeast cells with central septation. What could be the probable etiological agent?
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|----------------------------------|-----------------------------------|
| a. <i>Coccidioides immitis</i> | b. <i>Cryptococcus neoformans</i> |
| c. <i>Pneumocystis jirovecii</i> | d. <i>Penicillium marneffeii</i> |
14. A 30 year old male fisherman by profession complained of blurred vision with severe headaches. On examination he has developed ulcerative keratitis with punctuate keratopathy. On culture over non-nutrient agar saline plate seeded with *E. coli* produced tracks of a suspected motile microbial agent. Identify which of the following could be the most probable organism?
- | | |
|---------------------------|-----------------------------|
| a. <i>Acanthamoeba</i> | b. <i>Naegleria fowleri</i> |
| c. <i>Giardia lamblia</i> | d. <i>Balamuthia</i> |
15. A pregnant mother had been admitted at the 15th week of her pregnancy on account of a febrile illness, symptoms of common cold and enlargement of submandibular lymph nodes. A fetal scan showed an anomaly in fetus including mild hydrocephaly. Termination of the pregnancy was suggested by the physician and pregnancy was terminated 178 days after conception. Which of the following can be transmitted transplacentally and be detected by amniotic fluid analysis?
- | | |
|-----------------------------|-----------------------------------|
| a. <i>Taenia solium</i> | b. <i>Echinococcus granulosus</i> |
| c. <i>Toxoplasma gondii</i> | d. <i>Plasmodium falciparum</i> |

