# Chhattisgarh Public Service Commission

**Notations :**

1.Options shown in green color and with ✔ icon are correct.

2.Options shown in red color and with ✖ icon are incorrect.

**Question Paper Name:** CGPSC Boiler Inspector Actual
**Subject Name:** CGPSC Boiler Inspector
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CGPSC Boiler Inspector

| | |
|---|---|
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General Knowledge based on Chhattisgarh

Mandatory or Optional: Mandatory

**Question Number : 1 Question Id : 8577 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

In 1918 A.D, where was the Home Rule League conference organized in Chhattisgarh?

**Options :**

1. ✔ Raipur
2. ✖ Raigarh
3. ✖ Bilaspur
4. ✖ Sarguja
5. ✖ Durg

**Question Number : 1 Question Id : 8577 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

सन् 1918 में, छतीसगढ़ में किस स्थान में होमरूल लीग का सम्मेलन आयोजित किया गया था?

**Options :**

1. ✔ रायपुर
2. ✖ रायगढ़
3. ✖ बिलासपुर
4. ✖ सरगुजा
5. ✖ दुर्ग

**Question Number : 2 Question Id : 8578 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Which Kalturi King produced Golden coin for the first time in Chhattisgarh?

**Options :**

1. ✖ Prithvi Dev, the II
2. ✖ Jajalya Dev, the II
3. ✔ Jajalya Dev, the I
4. ✖ Pratap Malla
5. ✖ Prithvi Dev, the I

**Question Number : 2 Question Id : 8578 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

कौन से कल्चुरी राजा ने छतीसगढ़ में सोने के सिक्के चलाए थे?

**Options :**

1. ✖ पृथ्वीदेव द्वितीय
2. ✖ जाजल्य देव द्वितीय
3. ✔ जाजल्य देव प्रथम
4. ✖ प्रताप मल्ल
5. ✖ पृथ्वीदेव प्रथम

**Question Number : 3 Question Id : 8579 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Chhipchhipi is a name of a Devi (Goddess) in Chhattisgarh. In which town is this goddess situated?

**Options :**

1. ✖ Ambikapur
2. ✖ Jashpur
3. ✔ Baikunthapur
4. ✖ Jagdalpur
5. ✖ Kunkuri

**Question Number : 3 Question Id : 8579 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

छतीसगढ़ में छिपछिपी एक देवी का नाम है। यह किस नगर में देवी के रूप में प्रतिष्ठित है?

**Options :**

1. ✖ अम्बिकापुर
2. ✖ जशपुर
3. ✔ बैकुन्ठपुर
4. ✖ जगदलपुर
5. ✖ कुनकुरी

**Question Number : 4 Question Id : 8580 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Choose the name of the person who was an advocate by profession but he was a writer too. The name of his book is - 'History of Holland'.

**Options :**

1. ✖ Pt. Lochan Prasad Pandey
2. ✖ Pt. Mukut Dhar Pandey
3. ✖ Pt. Sundar Lal Sharma
4. ✔ Thakur Chhedilal
5. ✖ E. Raghvendra Rao

**Question Number : 4 Question Id : 8580 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
उस व्यक्ति का नाम चुनिए जो पेशे से एक वकील थे, परन्तु वे एक अच्छे लेखक भी थे। इनकी पुस्तक का नाम है– "हालैण्ड का इतिहास"।

**Options :**

1. ✖ पं. लोचन प्रसाद पाण्डेय
2. ✖ पं. मुकुटधर पाण्डेय
3. ✖ पं. सुन्दर लाल शर्मा
4. ✔ ठाकुर छेदीलाल
5. ✖ ई. राघवेन्द्र राव

**Question Number : 5 Question Id : 8581 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Match List I with List II and choose the correct answer from the options below.

| List I (Places in Chhatisgarh where Individual Satyagraha took place) | List II (Leaders) |
|---|---|
| A. Raipur | 1. Pt. Ravishankar Shukla |
| B. Bilaspur | 2. Ramgopal Tiwari |
| C. Dhamtari | 3. Chhotelal Shrivastava |
| D. Durg | 4. Ghanshyam Singh Gupta |

**Options :**

1. ✔ A-1, B-2, C-3, D-4
2. ✖ A-2, B-3, C-4, D-1
3. ✖ A-3, B-4, C-1, D-2
4. ✖ A-4, B-1, C-2, D-3
5. ✖ A-4, B-3, C-2, D-1

**Question Number : 5 Question Id : 8581 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
सारणी I को सारणी II से मिलाएं और नीचे दिए गए विकल्पों में से सही उत्तर चुनें।

| सारणी I (छतीसगढ़ के स्थान जहाँ व्यक्तिगत सत्याग्रह हुए) | सारणी II (नेता) |
|---|---|
| a. रायपुर | 1. पं. रविशंकर शुक्ल |
| b. बिलासपुर | 2. रामगोपाल तिवारी |
| c. धमतरी | 3. छोटेलाल श्रीवास्तव |
| d. दुर्ग | 4. घनश्याम सिंह गुप्त |

**Options :**

1. ✔ A-1, B-2, C-3, D-4
2. ✖ A-2, B-3, C-4, D-1
3. ✖ A-3, B-4, C-1, D-2
4. ✖ A-4, B-1, C-2, D-3
5. ✖ A-4, B-3, C-2, D-1

**Question Number : 6 Question Id : 8582 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Who was the pioneer of Raipur Conspiracy Case that occurred in Chhattisgarh in 1942?
**Options :**
1. ✖ Ranvir Singh Shastri
2. ✔ Parasram Soni
3. ✖ Baliram Tiwari
4. ✖ Maulana Abdul Rauf
5. ✖ Waman Rao Lakhe

**Question Number : 6 Question Id : 8582 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
1942 में छतीसगढ़ में हुए रायपुर षडयंत्र केस का अगुआ निम्नलिखित में से कौन था?
**Options :**
1. ✖ रणवीर सिंह शास्त्री
2. ✔ परसराम सोनी
3. ✖ बालिराम तिवारी
4. ✖ मौलाना अब्दुल रउफ
5. ✖ वामनराव लाखे

**Question Number : 7 Question Id : 8583 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
What is Tender vote in the context of Panchayat election in Chhattisgarh?
**Options :**
1. ✖ This ballot paper is given to Blind voters.
2. ✖ This ballot paper is given to women voters.
3. ✖ This ballot paper is given to the candidate contesting election.
4. ✔ This ballot paper is given to the voter, who has not yet given his vote but vote has been already given in his name.
5. ✖ This ballot paper is used by Electronic Voting Machine.

**Question Number : 7 Question Id : 8583 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
छत्तीसगढ़ में पंचायत चुनाव के संदर्भ में निविदत्त मत क्या है?
**Options :**
1. ✖ यह मतपत्र अंधे मतदाता को दिया जाता है।
2. ✖ यह मतपत्र महिला मतदाता को दिया जाता है।
3. ✖ यह मतपत्र चुनाव लड़ने वाले अभ्यर्थी को दिया जाता है।
4. ✔ यह मतपत्र उस मतदाता को दिया जाता है जिसने अभी मत नहीं दिया है किन्तु उसके नाम से मत दिया जा चुका है।
5. ✖ यह मतपत्र इलेक्ट्रानिक वोटिंग मशीन द्वारा उपयोग में लाया जाता है।

**Question Number : 8 Question Id : 8584 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which date is unmatched in the context of meeting of Gram Sabha?
**Options :**
1. ✖ 23 January
2. ✖ 14 April

3. ✔ 14 May
4. ✖ 20 August
5. ✖ 2 October

**Question Number : 8 Question Id : 8584 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
ग्राम सभा की बैठक के संदर्भ में कौन-सी तिथि असम्बध्द है?

**Options :**
1. ✖ 23 जनवरी
2. ✖ 14 अप्रैल
3. ✔ 14 मई
4. ✖ 20 अगस्त
5. ✖ 2 अक्टूबर

**Question Number : 9 Question Id : 8585 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Match List I with List II and choose the correct answer from the options below.

| **List I** (Chhattisgarh Panchayat election) | **List II** (Colour of ballot papers) |
|---|---|
| i. Member of Jila Panchayat | A. White |
| ii. Member of Janpad Panchayat | B. Blue |
| iii. Sarpanch | C. Pink |
| iv. Panch | D. Yellow |

**Options :**
1. ✖ A-i, B-iii, C-iv, D-ii
2. ✔ A-iv, B-iii, C-i, D-ii
3. ✖ A-iii, B-i, C-iv, D-ii
4. ✖ A-ii, B-iv, C-iii, D-i
5. ✖ A-iii, B-ii, C-i, D-iv

**Question Number : 9 Question Id : 8585 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
सारणी I को सारणी II से मिलाएं और नीचे दिए गए विकल्पों में से सही उत्तर चुनें।

| सारणी I (छत्तीसगढ़ पंचायत निर्वाचन) | सारणी II (मतपत्रों का रंग) |
|---|---|
| i. जिला पंचायत सदस्य | A. सफेद |
| ii. जनपद पंचायत सदस्य | B. नीला |
| iii. सरपंच | C. गुलाबी |
| iv. पंच | D. पीला |

**Options :**
1. ✖ A-i, B-iii, C-iv, D-ii
2. ✔ A-iv, B-iii, C-i, D-ii
3. ✖ A-iii, B-i, C-iv, D-ii

4. ✖ A-ii, B-iv, C-iii, D-i

5. ✖ A-iii, B-ii, C-i, D-iv

**Question Number : 10 Question Id : 8586 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Which information is not placed in the meetings of Gram Sabha?

**Options :**

1. ✖ Annual Statement of Accounts

2. ✖ Audit report of last year

3. ✔ Statement of immovable property of Panch/Sarpanch

4. ✖ Annual Budget

5. ✖ Statement of works of Panchayat

**Question Number : 10 Question Id : 8586 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

ग्राम सभा की बैठकों में कोन-सी सुचना प्रस्तुत नहीं की जाती?

**Options :**

1. ✖ वार्षिक लेखा विवरण

2. ✖ विगत वर्ष का अंकक्षण प्रतिवेदन

3. ✔ पंच/सरपंच के अचल सम्पति का विवरण

4. ✖ वार्षिक आय-व्ययक

5. ✖ पंचायत के कार्यों का विवरण

**Question Number : 11 Question Id : 8587 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Who is unmatched in the context of elected members of Parliament from Chhattisgarh?

**Options :**

1. ✖ Bhushan Lal Jangde

2. ✔ Gopal Vyas

3. ✖ Mohsina Kidwai

4. ✖ Moti Lal Vora

5. ✖ Ranvijay Pratap Singh Judev

**Question Number : 11 Question Id : 8587 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

छत्तीसगढ़ से निर्वाचित सांसदों के संदर्भ में कौन सुमेलित नहीं है?

**Options :**

1. ✖ भुषणलाल जांगड़े

2. ✔ गोपाल व्यास

3. ✖ मोहसिना किदवई

4. ✖ मोतिलाल वोरा

5. ✖ रणविजय प्रताप सिंह जुदेव

**Question Number : 12 Question Id : 8588 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Who is the unique person in the context of speaker of Chhattisgarh Legislative Assembly?

**Options :**

1. ✔ Rajendra Prasad Shukla

2. ✖ Mahendra Bahadur Singh
3. ✖ Satya Narayan Sharma
4. ✖ Dharam Lal Koushik
5. ✖ Gouri Shankar Agrawal

**Question Number : 12 Question Id : 8588 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
छत्तीसगढ़ में विधानसभा स्पीकर के संदर्भ में विशिष्ट व्यक्ति कौन है?
**Options :**
1. ✔ राजेन्द्र प्रसाद शुक्ला
2. ✖ महेंद्र बहादुर सिंह
3. ✖ सत्य नारायण शर्मा
4. ✖ धरमलाल कौशिक
5. ✖ गौरीशंकर अग्रवाल

**Question Number : 13 Question Id : 8589 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which amongst the following peaks is the highest?
**Options :**
1. ✔ Bailadeila
2. ✖ Mainpat
3. ✖ Devgarh
4. ✖ Keshkal
5. ✖ Chang-Bhakar

**Question Number : 13 Question Id : 8589 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
निम्नलिखित में सबसे ऊंची चोटी कौन सी है?
**Options :**
1. ✔ बैलाडिला
2. ✖ मैनपाट
3. ✖ देवगढ़
4. ✖ केशकाल
5. ✖ चांगभाखर

**Question Number : 14 Question Id : 8590 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following lists the districts of Chhattisgarh through which the Tropic of Cancer passes?
**Options :**
1. ✔ Koriya, Surajpur, Balrampur
2. ✖ Koriya, Sarguja, Balrampur
3. ✖ Sarguja, Korba, Jashpur
4. ✖ Balrampur, Surajpur, Jashpur
5. ✖ Korba, Koriya, Sarguja

**Question Number : 14 Question Id : 8590 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
छत्तीसगढ़ के किन जिलों से कर्क रेखा गुजरती है?

**Options :**

1. ✔ कोरिया, सुरजपुर, बलरामपुर
2. ✖ कोरिया, सरगुजा, बलरामपुर
3. ✖ सरगुजा, कोरबा, जशपुर
4. ✖ बलरामपुर, सुरजपुर, जशपुर
5. ✖ कोरबा, कोरिया, सरगुजा

**Question Number : 15 Question Id : 8591 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following districts touches the boundary of Andhra Pradesh?

**Options :**

1. ✖ Dantewada
2. ✖ Bijapur
3. ✖ Sukma
4. ✖ Sukma Bijapur
5. ✔ None of these

**Question Number : 15 Question Id : 8591 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
निम्नलिखित में से कौन सा जिला आंध्र प्रदेश को स्पर्श करता है?

**Options :**

1. ✖ दन्तेवाड़ा
2. ✖ बीजापुर
3. ✖ सुकमा
4. ✖ सुकमा–बीजापुर
5. ✔ इनमें से कोई नहीं

**Question Number : 16 Question Id : 8592 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Albaka hill is located in:

**Options :**

1. ✖ Sukma
2. ✖ Narayanpur
3. ✖ Dantewada
4. ✖ Bastar
5. ✔ Bijapur

**Question Number : 16 Question Id : 8592 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
अलबका पहाड़ी कहाँ स्थित है?

**Options :**

1. ✖ सुकमा
2. ✖ नारायणपुर
3. ✖ दन्तेवाड़ा
4. ✖ बस्तर
5. ✔ बीजापुर

**Question Number : 17 Question Id : 8593 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

In which year was Chhattisgarh Mineral Development Corporation established?

**Options :**

1. ✖ 1994
2. ✖ 1997
3. ✖ 2000
4. ✔ 2001
5. ✖ 2003

**Question Number : 17 Question Id : 8593 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

छत्तीसगढ़ मिनरल डेवलपमेंट कॉर्पोरेशन की स्थापना कब हुई?

**Options :**

1. ✖ 1994
2. ✖ 1997
3. ✖ 2000
4. ✔ 2001
5. ✖ 2003

**Question Number : 18 Question Id : 8594 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Which of the following is established in Ramhepur village?

**Options :**

1. ✖ Rice Industry
2. ✔ Sugar Industry
3. ✖ Rice-Bran oil
4. ✖ Lac Industry
5. ✖ Silk Industry

**Question Number : 18 Question Id : 8594 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

राम्हेपुर गांव में निम्न में से क्या स्थापित है?

**Options :**

1. ✖ चावल उद्योग
2. ✔ शक्कर उद्योग
3. ✖ राइसब्रान ऑयल
4. ✖ लाख उद्योग
5. ✖ रेशम उद्योग

**Question Number : 19 Question Id : 8595 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Match the List I with List II and choose the correct answer from the options below.

| List I (Cement Factory) | List II (Place) |
|---|---|
| A. Ultratech | 1. Sonadih |
| B. Ambuja | 2. Baikunth |
| C. Lafarge | 3. Hirmi |
| D. Centuary | 4. Ravan |

**Options :**

1. ✔ A-3, B-4, C-1, D-2
2. ✖ A-4, B-1, C-2, D-3
3. ✖ A-2, B-3, C-4, D-1
4. ✖ A-3, B-2, C-4, D-1
5. ✖ A-4, B-3, C-1, D-2

**Question Number : 19 Question Id : 8595 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

सारणी I को सारणी II से मिलाएं और नीचे दिए गए विकल्पों में से सही उत्तर चुनें।

| सारणी I (सीमेंट संयंत्र) | सारणी II (स्थान) |
|---|---|
| A. अल्ट्राटेक | 1. सोनाडीह |
| B. अंबुजा | 2. बैकुंठ |
| C. लाफार्ज | 3. हिरमी |
| D. सेन्चुरी | 4. रवान |

**Options :**

1. ✔ A-3, B-4, C-1, D-2
2. ✖ A-4, B-1, C-2, D-3
3. ✖ A-2, B-3, C-4, D-1
4. ✖ A-3, B-2, C-4, D-1
5. ✖ A-4, B-3, C-1, D-2

**Question Number : 20 Question Id : 8596 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Which scheme was launched in the year 2005-06 for the construction of irrigation wells and installation of pumps for the small and marginal farmers of Chhattisgarh?

**Options :**

1. ✖ Kisan Samraddhi Scheme
2. ✔ Shakambhari Scheme
3. ✖ Minimum Irrigation Scheme
4. ✖ Micro Irrigation Scheme
5. ✖ None of these

**Question Number : 20 Question Id : 8596 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

छत्तीसगढ़ के लघु एंव सीमान्त कृषकों को सिंचाई कूप एंव पंप स्थापना हेतु वर्ष 2005-06 में प्रारंभ की गई योजना का नाम क्या है?

**Options :**

1. ✖ किसान समृद्धि योजना
2. ✔ शाकम्भरी योजना
3. ✖ लघुतम सिंचाई योजना
4. ✖ सुक्ष्म सिंचाई योजना
5. ✖ इनमें से कोई नहीं

**Question Number : 21 Question Id : 8597 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

What was the quantity of wheat production in the year 2012-13 in Chhattisgarh?

**Options :**

1. ✔ 235.8 Thousand M.T.
2. ✖ 369.4 Thousand M.T.
3. ✖ 191.8 Thousand M.T.
4. ✖ 402.1 Thousand M.T.
5. ✖ 315.2 Thousand M.T.

**Question Number : 21 Question Id : 8597 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

छत्तीसगढ़ में वर्ष 2012-13 में गेहूं की उत्पादन मात्रा कितनी थी?

**Options :**

1. ✔ 235.8 हजार मी. टन
2. ✖ 369.4 हजार मी. टन
3. ✖ 191.8 हजार मी. टन
4. ✖ 402.1 हजार मी. टन
5. ✖ 315.2 हजार मी. टन

**Question Number : 22 Question Id : 8598 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Which of the following correctly lists different sources of irrigation area in decreasing order in Chattisgarh in 2011-12?

**Options :**

1. ✖ Tubewell, Canal, Pond, Well
2. ✖ Canal, Pond, Well, Tubewell
3. ✖ Pond, Well, Tubewell, Canal
4. ✔ Canal, Tubewell, Pond, Well
5. ✖ Canal, Well, Tubewell, Pond

**Question Number : 22 Question Id : 8598 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

छत्तीसगढ़ राज्य में 2011-12 में विभिन्न स्त्रोतों से सिंचित क्षेत्रफल का क्रम (घटते क्रम में) क्या है?

**Options :**

1. ✖ नलकूप, नहर, तालाब, कुएं
2. ✖ नहर, तालाब, कुएं, नलकूप
3. ✖ तालाब, कुएं, नलकूप, नहर
4. ✔ नहर, नलकूप, तालाब, कुएं
5. ✖ नहर, कुएं, नलकूप, तालाब

**Question Number : 23 Question Id : 8599 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following correctly lists the pulses crop in increasing order in 2011-12?
**Options :**
1. ✖ Urad, Tiwra, Tur, Gram
2. ✔ Tur, Urad, Gram, Tiwra
3. ✖ Tiwra, Gram, Tur, Urad
4. ✖ Gram, Tur, Urad, Tiwra
5. ✖ Urad, Tur, Tiwra, Gram

**Question Number : 23 Question Id : 8599 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
2011-12 के अनुसार दलहन फसलों के क्षेत्रफल का सही क्रम (बढ़ते क्रम में) क्या है?
**Options :**
1. ✖ उड़द, तिवड़ा, तुअर, चना
2. ✔ तुअर, उड़द, चना, तिवड़ा
3. ✖ तिवड़ा, चना, तुअर, उड़द
4. ✖ चना, तुअर, उड़द, तिवड़ा
5. ✖ उड़द, तुअर, तिवड़ा, चना

**Question Number : 24 Question Id : 8600 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The area under Bamboo species trees in Chhattisgarh state is:
**Options :**
1. ✖ $6500 - 7000\ km^2$
2. ✔ $6000 - 6500\ km^2$
3. ✖ $5500 - 6000\ km^2$
4. ✖ $5000 - 5500\ km^2$
5. ✖ $7000 - 7500\ km^2$

**Question Number : 24 Question Id : 8600 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
छत्तीसगढ़ राज्य में बांस प्रजाति के वृक्षों का क्षेत्रफल ____ है।
**Options :**
1. ✖ 6500-7000 वर्ग किलोमीटर
2. ✔ 6000-6500 वर्ग किलोमीटर
3. ✖ 5500-6000 वर्ग किलोमीटर
4. ✖ 5000-5500 वर्ग किलोमीटर
5. ✖ 7000-7500 वर्ग किलोमीटर

**Question Number : 25 Question Id : 8601 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which farmers of Chhattisgarh received the national Krishi Karman Prize in 2013-14?
**Options :**
1. ✖ Hemin Sahu and Omnarayan Chandrakar

2. ✖ Hemkumari Sahu and Narayan Chandrakar
3. ✖ Hemin Sahu and Subhash Chandrakar
4. ✔ Hemkumari Sahu and Prabhat Chandrakar
5. ✖ Hemkuwar Sahu and Rajendra Chandrakar

**Question Number : 25 Question Id : 8601 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
राष्ट्रीय 'कृषि कर्मण' पुरस्कार 2013-14, छत्तीसगढ़ के किन कृषकों को प्राप्त हुआ?
**Options :**
1. ✖ हेमिन साहू एवं ओमनारायण चन्द्राकर
2. ✖ हेमकुमारी साहू एवं नारायण चन्द्राकर
3. ✖ हेमिन साहू एवं सुभाष चन्द्राकर
4. ✔ हेमकुमारी साहू एवं प्रभात चन्द्राकर
5. ✖ हेमकुंवर साहू एवं राजेंद्र चन्द्राकर

**Question Number : 26 Question Id : 8602 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
In which field of work has Raja Chakradhar Singh made his contribution?
**Options :**
1. ✔ Kathak
2. ✖ Dhrupad
3. ✖ Gazal
4. ✖ Thumari
5. ✖ Drama

**Question Number : 26 Question Id : 8602 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
राजा चक्रधर सिंह का योगदान किस कार्यक्षेत्र में है?
**Options :**
1. ✔ कत्थक
2. ✖ ध्रुपद
3. ✖ गजल
4. ✖ ठुमरी
5. ✖ नाटक

**Question Number : 27 Question Id : 8603 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
In which district is Rishabh Tirth situated?
**Options :**
1. ✖ Korba
2. ✔ Janjgir - Champa
3. ✖ Raigarh
4. ✖ Bilaspur
5. ✖ Durg

**Question Number : 27 Question Id : 8603 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
ऋषभ तीर्थ किस जिले में स्थित है?

**Options :**

1. ✖ कोरबा
2. ✔ जांजगीर-चांपा
3. ✖ रायगढ़
4. ✖ बिलासपुर
5. ✖ दुर्ग

**Question Number : 28 Question Id : 8604 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

The Confluence of Shivnath and Kharun rivers is at which place?

**Options :**

1. ✖ Rajim
2. ✖ Shivrinarayan
3. ✔ Somnath
4. ✖ Angarmoti
5. ✖ Nandghat

**Question Number : 28 Question Id : 8604 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

शिवनाथ तथा खारून नदियों का संगम किस स्थान पर है?

**Options :**

1. ✖ राजिम
2. ✖ शिवरीनारायण
3. ✔ सोमनाथ
4. ✖ अंगारमोती
5. ✖ नांदघाट

**Question Number : 29 Question Id : 8605 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

At which place is Bilaimata temple situated?

**Options :**

1. ✔ Dhamtari
2. ✖ Gariyaband
3. ✖ Durg
4. ✖ Raipur
5. ✖ Mahasamund

**Question Number : 29 Question Id : 8605 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

बिलई माता मंदिर कहां स्थित है?

**Options :**

1. ✔ धमतरी
2. ✖ गरियाबन्द
3. ✖ दुर्ग
4. ✖ रायपुर
5. ✖ महासमुन्द

**Question Number : 30 Question Id : 8606 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

What does the term "Adabad" mean in Chattisgarhi?

**Options :**

1. ✖ Very few
2. ✔ Too much
3. ✖ Cowardiness
4. ✖ Bravery
5. ✖ Quite correct

**Question Number : 30 Question Id : 8606 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

छत्तीसगढ़ी में 'अड़बड़' का क्या अर्थ है?

**Options :**

1. ✖ बहुत कम
2. ✔ बहुत अधिक
3. ✖ कायरता
4. ✖ बहादुरी
5. ✖ बिल्कुल ठीक

**Question Number : 31 Question Id : 8607 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

The intoxicant drink prepared from rice in Bastar is known as:

**Options :**

1. ✖ Sharab
2. ✖ Salfi
3. ✖ Pej
4. ✔ Landa
5. ✖ Basi

**Question Number : 31 Question Id : 8607 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

बस्तर में चावल से निर्मित मादक पेय ____ कहा जाता है।

**Options :**

1. ✖ शराब
2. ✖ सल्फी
3. ✖ पेज
4. ✔ लांदा
5. ✖ बासी

**Question Number : 32 Question Id : 8608 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

What is Mohari from the following?

**Options :**

1. ✔ A musical instrument
2. ✖ Food material
3. ✖ Toys
4. ✖ Agricultural equipments
5. ✖ Theatrical tradition

**Question Number : 32 Question Id : 8608 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
मोहरी निम्न में से क्या है?
**Options :**
1. ✔ वाद्य यंत्र
2. ✖ खाद्य पदार्थ
3. ✖ खिलौना
4. ✖ कृषि उपकरण
5. ✖ नाट्य परंपरा

**Question Number : 33 Question Id : 8609 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following days is called 'Lakhimvar' in Bastar?
**Options :**
1. ✖ Friday
2. ✔ Thursday
3. ✖ Tuesday
4. ✖ Monday
5. ✖ Sunday

**Question Number : 33 Question Id : 8609 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
निम्न में से कौन से दिन को बस्तर में 'लखीमवार' कहते हैं?
**Options :**
1. ✖ शुक्रवार
2. ✔ बृहस्पतिवार
3. ✖ मंगलवार
4. ✖ सोमवार
5. ✖ रविवार

**Question Number : 34 Question Id : 8610 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following communities is famous for Ballad singing?
**Options :**
1. ✖ Kamar
2. ✔ Dewar
3. ✖ Pardhi
4. ✖ Binjhwar
5. ✖ Lodhi

**Question Number : 34 Question Id : 8610 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
इनमें से कौन-सा समुदाय गाथा गायन के लिए प्रसिद्ध है?
**Options :**
1. ✖ कमार
2. ✔ देवार
3. ✖ पारधी

4. ✖ बिंझवार
5. ✖ लोधी

**Question Number : 35 Question Id : 8611 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Rajwar clay lattice and wall relief art is related to which region of Chhattisgarh?
**Options :**
1. ✖ Kabirdham
2. ✖ Gariyaband
3. ✖ Raigarh
4. ✔ Sarguja
5. ✖ Jashpurnagar

**Question Number : 35 Question Id : 8611 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
रजवार मिट्टी की जाली और दीवार अंकनकला छत्तीसगढ़ के किस अंचल से सम्बंधित है?
**Options :**
1. ✖ कबीरधाम
2. ✖ गरियाबन्द
3. ✖ रायगढ़
4. ✔ सरगुजा
5. ✖ जशपुरनगर

**Question Number : 36 Question Id : 8612 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
In which of the following ceremonies are life size icons of powranic characters prepared?
**Options :**
1. ✖ Goura
2. ✖ Pola
3. ✖ Bharthari recital
4. ✔ Rahasa
5. ✖ Nawa Khai

**Question Number : 36 Question Id : 8612 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
छत्तीसगढ़ में इनमें से किस आयोजन में पौराणिक चरित्रों की मानवाकार प्रतिमाएं बनाते हैं?
**Options :**
1. ✖ गौरा
2. ✖ पोला
3. ✖ भरथरी गायन
4. ✔ रहस
5. ✖ नवाखाई

**Question Number : 37 Question Id : 8613 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
In which year did the production of Hydroelectricity Plant Sikaser start?
**Options :**
1. ✖ 2004

2. ✔ 2006
3. ✖ 2008
4. ✖ 2010
5. ✖ 2011

**Question Number : 37 Question Id : 8613 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
किस वर्ष में जल विद्युत गृह सीकासार में उत्पादन प्रारम्भ हुआ?
**Options :**
1. ✖ 2004
2. ✔ 2006
3. ✖ 2008
4. ✖ 2010
5. ✖ 2011

**Question Number : 38 Question Id : 8614 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
What percentage of Majara-Tola were electrified in Chhattisgarh till 2012-13?
**Options :**
1. ✖ 75%
2. ✔ 70.46%
3. ✖ 80.46%
4. ✖ 72.46%
5. ✖ 73.5%

**Question Number : 38 Question Id : 8614 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
वर्ष 2012-13 तक छत्तीसगढ़ में कितने मजरा-टोला का विद्युतीकरण हो गया था?
**Options :**
1. ✖ 75%
2. ✔ 70.46%
3. ✖ 80.46%
4. ✖ 72.46%
5. ✖ 73.5%

**Question Number : 39 Question Id : 8615 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Indira Khet Ganga Yojna under Kisan Samriddhi Yojna are implemented in how many districts?
**Options :**
1. ✖ 10 districts
2. ✖ 9 districts
3. ✖ 8 districts
4. ✖ 6 districts
5. ✔ 5 districts

**Question Number : 39 Question Id : 8615 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
किसान समृध्दि-योजना के अन्तर्गत इंदिरा खेत गंगा योजना छत्तीसगढ़ के कितने जिलों में लागू है?
**Options :**
1. ✖ 10 जिलों में
2. ✖ 9 जिलों में
3. ✖ 8 जिलों में
4. ✖ 6 जिलों में
5. ✔ 5 जिलों में

**Question Number : 40 Question Id : 8616 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
What was the established capacity of electricity production till Sept 2013 in Chhattisgarh?
**Options :**
1. ✖ 2280 MW
2. ✖ 2180 MW
3. ✖ 2427.7 MW
4. ✔ 2424.7 MW
5. ✖ 2442.7 MW

**Question Number : 40 Question Id : 8616 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
छत्तीसगढ़ में सितम्बर 2013 तक विद्युत उत्पादन की स्थापित क्षमता क्या थी?
**Options :**
1. ✖ 2280 मेगावाट
2. ✖ 2180 मेगावाट
3. ✖ 2427.7 मेगावाट
4. ✔ 2424.7 मेगावाट
5. ✖ 2442.7 मेगावाट

**Question Number : 41 Question Id : 8617 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
How many districts of Chhattisgarh state are completely included in scheduled area?
**Options :**
1. ✖ 12
2. ✔ 13
3. ✖ 14
4. ✖ 15
5. ✖ 16

**Question Number : 41 Question Id : 8617 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
छत्तीसगढ़ राज्य में कितने जिलों को पूर्णरूप से अनुसूचित क्षेत्र में शामिल किया गया है?
**Options :**
1. ✖ 12
2. ✔ 13
3. ✖ 14
4. ✖ 15

5. ✖ 16

**Question Number : 42 Question Id : 8618 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
According to Census 2011 (18 districts), how many districts have more number of females in comparison to the number of males?
**Options :**
1. ✖ 5
2. ✖ 6
3. ✔ 7
4. ✖ 8
5. ✖ 9

**Question Number : 42 Question Id : 8618 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
2011 की जनगणना (18 जिला) के अनुसार, छत्तीसगढ़ के कितने जिलों में पुरूषों की अपेक्षा स्त्रियों की संख्या अधिक रही?
**Options :**
1. ✖ 5
2. ✖ 6
3. ✔ 7
4. ✖ 8
5. ✖ 9

**Question Number : 43 Question Id : 8619 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
According to Census 2011, the sex ratio of ST. in Chhattisgarh is:
**Options :**
1. ✖ 1003
2. ✖ 1005
3. ✖ 1009
4. ✔ 1013
5. ✖ 1017

**Question Number : 43 Question Id : 8619 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
2011 की जनगणना के अनुसार छत्तीसगढ़ में अनुसुचित जनजातियों में लिंगानुपात ____ है।
**Options :**
1. ✖ 1003
2. ✖ 1005
3. ✖ 1009
4. ✔ 1013
5. ✖ 1017

**Question Number : 44 Question Id : 8620 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
In which month is the Hareli festival celebrated?
**Options :**
1. ✔ Shravan

2. ✖ Bhadrapad
3. ✖ Ashwin
4. ✖ Kartik
5. ✖ Ashadh

**Question Number : 44 Question Id : 8620 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
हरेली त्यौहार किस माह में मनाया जाता है?
**Options :**
1. ✔ श्रावण
2. ✖ भादपद
3. ✖ आश्विन
4. ✖ कार्तिक
5. ✖ आसाढ़

**Question Number : 45 Question Id : 8621 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
In which place is the oldest stone inscription in Chhattisgarhi language located?
**Options :**
1. ✖ Raipur
2. ✖ Kurud
3. ✔ Dantewada
4. ✖ Dhamtari
5. ✖ Bilaspur

**Question Number : 45 Question Id : 8621 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
छत्तीसगढ़ी भाषा का सबसे पुराना शिलालेख कहाँ स्थित है?
**Options :**
1. ✖ रायपुर
2. ✖ कुरूद
3. ✔ दन्तेबाड़ा
4. ✖ धमतरी
5. ✖ बिलासपुर

**Question Number : 46 Question Id : 8622 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Who was awarded Dau Mandraji Rajya Samman in the year 2014?
**Options :**
1. ✖ Bhulwa Ram
2. ✖ Usha Barle
3. ✖ Rekha Dewar
4. ✔ Anup Ranjan Pandey
5. ✖ Tulsi Ram

**Question Number : 46 Question Id : 8622 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
वर्ष 2014 का दाऊ मन्दराजी राज्य सम्मान किसे प्रदान किया गया है?

**Options :**

1. ✖ भुलवाराम
2. ✖ उषा बारले
3. ✖ रेखा देवार
4. ✔ अनूप रंजन पाण्डेय
5. ✖ तुलसी राम

**Question Number : 47 Question Id : 8623 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Which of the following forest circle areas (in geographical area) has the high percentage of forest area?

**Options :**

1. ✖ Kanker
2. ✔ Jagdalpur
3. ✖ Bilaspur
4. ✖ Sarguja
5. ✖ Raipur

**Question Number : 47 Question Id : 8623 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

निम्नलिखित वनवृत्त क्षेत्रों में (भौगोलिक क्षेत्र में) वनक्षेत्र का प्रतिशत किसमें अधिक है?

**Options :**

1. ✖ कांकेर
2. ✔ जगदलपुर
3. ✖ बिलासपुर
4. ✖ सरगुजा
5. ✖ रायपुर

**Question Number : 48 Question Id : 8624 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

In which of the following districts is the double crop area high?

**Options :**

1. ✔ Kawardha
2. ✖ Mungeli
3. ✖ Balod
4. ✖ Janjgir-Champa
5. ✖ Durg

**Question Number : 48 Question Id : 8624 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

निम्नलिखित में से किस जिले में दुफसली क्षत्रफल अधिक है?

**Options :**

1. ✔ कवर्धा
2. ✖ मुंगेली
3. ✖ बालोद
4. ✖ जांजगीर-चांपा
5. ✖ दुर्ग

**Question Number : 49 Question Id : 8625 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

How many tribes are included in Scheduled Tribes in Chhattisgarh?

**Options :**

1. ✖ 28
2. ✖ 34
3. ✖ 36
4. ✔ 42
5. ✖ 47

**Question Number : 49 Question Id : 8625 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

छत्तीसगढ़ में कितनी जनजातियों को अनुसूचित जनजातियों में सम्मिलित किया गया है?

**Options :**

1. ✖ 28
2. ✖ 34
3. ✖ 36
4. ✔ 42
5. ✖ 47

**Question Number : 50 Question Id : 8626 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

'Chedaru', famous as tiger kid of Madia tribe, belongs to which place?

**Options :**

1. ✖ Chhote Dongar
2. ✔ Gad Bengal
3. ✖ Orchha
4. ✖ Dhanora
5. ✖ Singanpur

**Question Number : 50 Question Id : 8626 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

टाईगर किड के रूप में विख्यात माडि़या जाति का 'चेदरू' किस स्थान से सम्बंधित है?

**Options :**

1. ✖ छोटे डोंगर
2. ✔ गड़बेंगाल
3. ✖ ओरछा
4. ✖ धनोरा
5. ✖ सिंगनपुर

Boiler

Mandatory or Optional: Mandatory

**Question Number : 51 Question Id : 8627 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

The ultrasonic inspection method involves ultrasonic waves produced from:

**Options :**

1. ✔ Piezoelectric materials
2. ✖ Electromagnetic materials
3. ✖ Ferromagnetic materials
4. ✖ Diamagnetic materials
5. ✖ Paramagnetic materials

**Question Number : 51 Question Id : 8627 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

The ultrasonic inspection method involves ultrasonic waves produced from:

**Options :**

1. ✔ Piezoelectric materials
2. ✖ Electromagnetic materials
3. ✖ Ferromagnetic materials
4. ✖ Diamagnetic materials
5. ✖ Paramagnetic materials

**Question Number : 52 Question Id : 8628 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

What is the source for the ultrasonic inspection of metals or alloys?

**Options :**

1. ✖ Sound waves below the audible range
2. ✔ Sound waves above the audible range
3. ✖ Sound waves with low frequency
4. ✖ Sound waves with frequency equal to the threshold of human hearing
5. ✖ Sound waves with low frequency or with frequency equal to the threshold of human hearing

**Question Number : 52 Question Id : 8628 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

What is the source for the ultrasonic inspection of metals or alloys?

**Options :**

1. ✖ Sound waves below the audible range
2. ✔ Sound waves above the audible range
3. ✖ Sound waves with low frequency
4. ✖ Sound waves with frequency equal to the threshold of human hearing
5. ✖ Sound waves with low frequency or with frequency equal to the threshold of human hearing

**Question Number : 53 Question Id : 8629 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

What type of set-up is capable of providing information about both the size of the flaw and depth of location of the discontinuity?

**Options :**

1. ✖ Through transmission
2. ✖ Pitch/catch with two transducers
3. ✔ Pulse echo
4. ✖ Through impact testing
5. ✖ Contact testing

**Question Number : 53 Question Id : 8629 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

What type of set-up is capable of providing information about both the size of the flaw and depth of location of the discontinuity?

**Options :**

1. ✖ Through transmission
2. ✖ Pitch/catch with two transducers
3. ✔ Pulse echo
4. ✖ Through impact testing
5. ✖ Contact testing

**Question Number : 54 Question Id : 8630 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

One of the most common applications of ultrasonic tests employing shear waves is the:

**Options :**

1. ✔ detection of discontinuities in welds, tubes and pipes
2. ✖ determination of elastic properties of metallic products
3. ✖ detection of laminar discontinuities in heavy plates
4. ✖ measurement of thickness of thin plates
5. ✖ detection of fatigue cracks in heavy plates

**Question Number : 54 Question Id : 8630 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

One of the most common applications of ultrasonic tests employing shear waves is the:

**Options :**

1. ✔ detection of discontinuities in welds, tubes and pipes
2. ✖ determination of elastic properties of metallic products
3. ✖ detection of laminar discontinuities in heavy plates
4. ✖ measurement of thickness of thin plates
5. ✖ detection of fatigue cracks in heavy plates

**Question Number : 55 Question Id : 8631 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

The loss of ultrasonic energy due to scattering and absorption is referred to as:

**Options :**

1. ✖ Reflection
2. ✖ Refraction
3. ✖ Diffraction
4. ✖ Impedance
5. ✔ Attenuation

**Question Number : 55 Question Id : 8631 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

The loss of ultrasonic energy due to scattering and absorption is referred to as:

**Options :**

1. ✖ Reflection
2. ✖ Refraction

3. ✖ Diffraction

4. ✖ Impedance

5. ✔ Attenuation

**Question Number : 56 Question Id : 8632 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

An ultrasonic data display which shows a plan view of the defects projected on a plane at right angles to the axis of the beam is called:

**Options :**

1. ✖ A-scan

2. ✖ B-scan

3. ✔ C-scan

4. ✖ Orthogonal view

5. ✖ Both A- and B-scan

**Question Number : 56 Question Id : 8632 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

An ultrasonic data display which shows a plan view of the defects projected on a plane at right angles to the axis of the beam is called:

**Options :**

1. ✖ A-scan

2. ✖ B-scan

3. ✔ C-scan

4. ✖ Orthogonal view

5. ✖ Both A- and B-scan

**Question Number : 57 Question Id : 8633 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

A technique in which two transducers are used, one on each side of the test piece, is called:

**Options :**

1. ✖ Angle beam testing

2. ✖ Modified immersion testing

3. ✔ Through transmission testing

4. ✖ Twinning

5. ✖ Contact testing

**Question Number : 57 Question Id : 8633 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

A technique in which two transducers are used, one on each side of the test piece, is called:

**Options :**

1. ✖ Angle beam testing

2. ✖ Modified immersion testing

3. ✔ Through transmission testing

4. ✖ Twinning

5. ✖ Contact testing

**Question Number : 58 Question Id : 8634 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Which of the following defines the relationship between the longitudinal wave incident angle and the refracted shear wave angle?

**Options :**

1. ✔ Snell's Law
2. ✖ Snell's Constant
3. ✖ The Law of Acoustics
4. ✖ Fraunhofer's Law
5. ✖ Faraday's Law

**Question Number : 58 Question Id : 8634 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Which of the following defines the relationship between the longitudinal wave incident angle and the refracted shear wave angle?

**Options :**

1. ✔ Snell's Law
2. ✖ Snell's Constant
3. ✖ The Law of Acoustics
4. ✖ Fraunhofer's Law
5. ✖ Faraday's Law

**Question Number : 59 Question Id : 8635 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Which of the following relations defines acoustic impedance?

**Options :**

1. ✖ Material density / Wavelength
2. ✔ Material density × Velocity
3. ✖ Velocity / Wavelength
4. ✖ Velocity × Wavelength
5. ✖ Wavelength × Material density

**Question Number : 59 Question Id : 8635 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Which of the following relations defines acoustic impedance?

**Options :**

1. ✖ Material density / Wavelength
2. ✔ Material density × Velocity
3. ✖ Velocity / Wavelength
4. ✖ Velocity × Wavelength
5. ✖ Wavelength × Material density

**Question Number : 60 Question Id : 8636 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

An IQI is used to determine the:

**Options :**

1. ✖ size of a discontinuity in the part
2. ✖ density of the film
3. ✖ radiographic contrast
4. ✔ quality of the radiographic image

5. ✖ porosity

**Question Number : 60 Question Id : 8636 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
An IQI is used to determine the:

**Options :**

1. ✖ size of a discontinuity in the part
2. ✖ density of the film
3. ✖ radiographic contrast
4. ✔ quality of the radiographic image
5. ✖ porosity

**Question Number : 61 Question Id : 8637 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following correctly expresses the inverse square law? Here,
$I_1$ = dose rate nearest source,
$I_2$ = dose rate furthest from the source,
$D_1$ = distance nearest to source, and
$D_2$ = distance furthest from the source.

**Options :**

1. ✖ $I_1/I_2 = D_1^2/D_2^2$
2. ✖ $I_1^2/I_2^2 = D_1/D_2$
3. ✔ $I_1/I_2 = D_2^2/D_1^2$
4. ✖ $I_1^2/I_2^2 = D_2/D_1$
5. ✖ $I_1^2/I_2^2 = D_2/(D_1 + 1)$

**Question Number : 61 Question Id : 8637 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following correctly expresses the inverse square law? Here,
$I_1$ = dose rate nearest source,
$I_2$ = dose rate furthest from the source,
$D_1$ = distance nearest to source, and
$D_2$ = distance furthest from the source.

**Options :**

1. ✖ $I_1/I_2 = D_1^2/D_2^2$
2. ✖ $I_1^2/I_2^2 = D_1/D_2$
3. ✔ $I_1/I_2 = D_2^2/D_1^2$
4. ✖ $I_1^2/I_2^2 = D_2/D_1$
5. ✖ $I_1^2/I_2^2 = D_2/(D_1 + 1)$

**Question Number : 62 Question Id : 8638 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Which of the following is the correct formula for calculating geometric un-sharpness (Ug)? Here, f = source size, t = object-to-film distance and D = source-to-object distance.

**Options :**

1. ✖ Ug = f D/t
2. ✖ Ug = D t/f
3. ✖ Ug = f/Dt
4. ✖ Ug = ftD
5. ✔ Ug = f t/D

**Question Number : 62 Question Id : 8638 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Which of the following is the correct formula for calculating geometric un-sharpness (Ug)? Here, f = source size, t = object-to-film distance and D = source-to-object distance.

**Options :**

1. ✖ Ug = f D/t
2. ✖ Ug = D t/f
3. ✖ Ug = f/Dt
4. ✖ Ug = ftD
5. ✔ Ug = f t/D

**Question Number : 63 Question Id : 8639 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

If the required exposure time for a 50 Curie Ir-192 source is 4 minutes, what exposure time would be required at 25 Curie source?

**Options :**

1. ✖ 2 minutes
2. ✖ 4 minutes
3. ✔ 8 minutes
4. ✖ 16 minutes
5. ✖ 20 minutes

**Question Number : 63 Question Id : 8639 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

If the required exposure time for a 50 Curie Ir-192 source is 4 minutes, what exposure time would be required at 25 Curie source?

**Options :**

1. ✖ 2 minutes
2. ✖ 4 minutes
3. ✔ 8 minutes
4. ✖ 16 minutes
5. ✖ 20 minutes

**Question Number : 64 Question Id : 8640 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

In a radiograph of a weld, there is an indication appearing as straight, dark band parallel to the weld bead. This would probably be:

**Options :**

1. ✖ Incomplete penetration
2. ✔ Lack of side wall fusion

3. ✖ Slag inclusions
4. ✖ Tungsten inclusions
5. ✖ Burn through

**Question Number : 64 Question Id : 8640 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
In a radiograph of a weld, there is an indication appearing as straight, dark band parallel to the weld bead. This would probably be:

**Options :**
1. ✖ Incomplete penetration
2. ✔ Lack of side wall fusion
3. ✖ Slag inclusions
4. ✖ Tungsten inclusions
5. ✖ Burn through

**Question Number : 65 Question Id : 8641 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following is a radiation producing device that emits radiation of one or a few discrete wavelengths?

**Options :**
1. ✖ An X-ray machine
2. ✖ A linear accelerator
3. ✔ A gamma ray source
4. ✖ A betatron
5. ✖ Van de Graaff generator

**Question Number : 65 Question Id : 8641 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following is a radiation producing device that emits radiation of one or a few discrete wavelengths?

**Options :**
1. ✖ An X-ray machine
2. ✖ A linear accelerator
3. ✔ A gamma ray source
4. ✖ A betatron
5. ✖ Van de Graaff generator

**Question Number : 66 Question Id : 8642 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Radiography of tubular sections using a double wall, double viewing technique is mainly applicable to sections:

**Options :**
1. ✖ Under 2.5-inch in diameter
2. ✔ 3.5-inch or less in diameter
3. ✖ 3.5-inch or more in diameter
4. ✖ of diameter equal to 3.8-inch
5. ✖ 4.5-inch or more in diameter

**Question Number : 66 Question Id : 8642 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Radiography of tubular sections using a double wall, double viewing technique is mainly applicable to sections:

**Options :**

1. ✖ Under 2.5-inch in diameter
2. ✔ 3.5-inch or less in diameter
3. ✖ 3.5-inch or more in diameter
4. ✖ of diameter equal to 3.8-inch
5. ✖ 4.5-inch or more in diameter

**Question Number : 67 Question Id : 8643 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

A casting flaw which is formed when two masses of molten metal flowing from different directions flow together, but fail to fuse, is called:

**Options :**

1. ✖ A hot tear
2. ✖ Shrinkage
3. ✖ A cold crack
4. ✔ A cold shut
5. ✖ Misruns

**Question Number : 67 Question Id : 8643 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

A casting flaw which is formed when two masses of molten metal flowing from different directions flow together, but fail to fuse, is called:

**Options :**

1. ✖ A hot tear
2. ✖ Shrinkage
3. ✖ A cold crack
4. ✔ A cold shut
5. ✖ Misruns

**Question Number : 68 Question Id : 8644 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Which type of gamma ray source would be used to radiograph a weld in 150 mm thick steel plate?

**Options :**

1. ✖ Ir-192
2. ✔ Co-60
3. ✖ Tm-170
4. ✖ Cs-137
5. ✖ Ta-182

**Question Number : 68 Question Id : 8644 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Which type of gamma ray source would be used to radiograph a weld in 150 mm thick steel plate?

**Options :**

1. ✖ Ir-192
2. ✔ Co-60
3. ✖ Tm-170
4. ✖ Cs-137

5. ✖ Ta-182

**Question Number : 69 Question Id : 8645 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which is the most effective NDT method for locating surface cracks in ferromagnetic materials?
**Options :**
1. ✖ Ultrasonic testing
2. ✖ Radiographic testing
3. ✔ Magnetic particle testing
4. ✖ Vickers testing
5. ✖ Both ultrasonic and radiographic testing

**Question Number : 69 Question Id : 8645 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which is the most effective NDT method for locating surface cracks in ferromagnetic materials?
**Options :**
1. ✖ Ultrasonic testing
2. ✖ Radiographic testing
3. ✔ Magnetic particle testing
4. ✖ Vickers testing
5. ✖ Both ultrasonic and radiographic testing

**Question Number : 70 Question Id : 8646 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
A common physiological effect of black light inspection on the inspector is:
**Options :**
1. ✖ Burned retinas of the eyes
2. ✖ Rejected cornea syndrome
3. ✔ Eye fatigue
4. ✖ Retarded iris control
5. ✖ Burned macula of the eyes

**Question Number : 70 Question Id : 8646 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
A common physiological effect of black light inspection on the inspector is:
**Options :**
1. ✖ Burned retinas of the eyes
2. ✖ Rejected cornea syndrome
3. ✔ Eye fatigue
4. ✖ Retarded iris control
5. ✖ Burned macula of the eyes

**Question Number : 71 Question Id : 8647 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Dyes which receive light at one wavelength and re-emit light of another wavelength are called:
**Options :**
1. ✖ L.E.Ds
2. ✖ Phosphorescent

3. ✖ Luminescent
4. ✔ Fluorescent
5. ✖ Both Luminescent and L.E.Ds

**Question Number : 71 Question Id : 8647 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Dyes which receive light at one wavelength and re-emit light of another wavelength are called:
**Options :**
1. ✖ L.E.Ds
2. ✖ Phosphorescent
3. ✖ Luminescent
4. ✔ Fluorescent
5. ✖ Both Luminescent and L.E.Ds

**Question Number : 72 Question Id : 8648 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following is the most desirable method of pre-cleaning a test piece prior to penetrant testing?
**Options :**
1. ✖ Sand blasting
2. ✔ Vapour degreasing
3. ✖ Emery cloth
4. ✖ Wire brushing
5. ✖ Shot blasting

**Question Number : 72 Question Id : 8648 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following is the most desirable method of pre-cleaning a test piece prior to penetrant testing?
**Options :**
1. ✖ Sand blasting
2. ✔ Vapour degreasing
3. ✖ Emery cloth
4. ✖ Wire brushing
5. ✖ Shot blasting

**Question Number : 73 Question Id : 8649 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
What is the colour of fluorescent penetrant under the presence of a UV light?
**Options :**
1. ✔ Yellow-green
2. ✖ Red-blue
3. ✖ Blue-green
4. ✖ Green-red
5. ✖ Red-yellow

**Question Number : 73 Question Id : 8649 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
What is the colour of fluorescent penetrant under the presence of a UV light?
**Options :**

1. ✔ Yellow-green
2. ✖ Red-blue
3. ✖ Blue-green
4. ✖ Green-red
5. ✖ Red-yellow

**Question Number : 74 Question Id : 8650 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Liquid penetrant testing is based on the principle of:
**Options :**
1. ✖ Polarized sound waves in a liquid
2. ✖ Magnetic domains
3. ✖ Absorption of X rays
4. ✔ Capillary action of the penetrant
5. ✖ Surface tension

**Question Number : 74 Question Id : 8650 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Liquid penetrant testing is based on the principle of:
**Options :**
1. ✖ Polarized sound waves in a liquid
2. ✖ Magnetic domains
3. ✖ Absorption of X rays
4. ✔ Capillary action of the penetrant
5. ✖ Surface tension

**Question Number : 75 Question Id : 8651 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following is not a Non-Destructive testing?
**Options :**
1. ✖ Radiographic testing and eddy current technique
2. ✖ Dye penetrant test and holography
3. ✖ Ultrasonic testing and liquid penetrant test
4. ✖ Magnetic particle testing and eddy current technique
5. ✔ Compressive and vickers test

**Question Number : 75 Question Id : 8651 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following is not a Non-Destructive testing?
**Options :**
1. ✖ Radiographic testing and eddy current technique
2. ✖ Dye penetrant test and holography
3. ✖ Ultrasonic testing and liquid penetrant test
4. ✖ Magnetic particle testing and eddy current technique
5. ✔ Compressive and vickers test

**Question Number : 76 Question Id : 8652 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Possible degradation of penetrant materials performance is often checked by:

**Options :**

1. ✔ Performing penetrant testing of comparator blocks using samples of new and used penetrant materials
2. ✖ Water tolerance test
3. ✖ Penetrameter
4. ✖ Judgment of a qualified inspector during production testing
5. ✖ Collimator

**Question Number : 76 Question Id : 8652 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Possible degradation of penetrant materials performance is often checked by:

**Options :**

1. ✔ Performing penetrant testing of comparator blocks using samples of new and used penetrant materials
2. ✖ Water tolerance test
3. ✖ Penetrameter
4. ✖ Judgment of a qualified inspector during production testing
5. ✖ Collimator

**Question Number : 77 Question Id : 8653 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

A group of indications, some sharp, some broad and fuzzy, were found on an area of a small forging. Demagnetization and re-inspection eliminated these indications. What was the probable cause?

**Options :**

1. ✖ Forging lap
2. ✔ Magnetic writing
3. ✖ Change in permeability
4. ✖ Subsurface variation
5. ✖ Flash line crack

**Question Number : 77 Question Id : 8653 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

A group of indications, some sharp, some broad and fuzzy, were found on an area of a small forging. Demagnetization and re-inspection eliminated these indications. What was the probable cause?

**Options :**

1. ✖ Forging lap
2. ✔ Magnetic writing
3. ✖ Change in permeability
4. ✖ Subsurface variation
5. ✖ Flash line crack

**Question Number : 78 Question Id : 8654 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

According to ASTM E709-95, when dry particles are used magnetic particle testing shall not be performed on the surface of parts whose temperature exceeds:

**Options :**

1. ✔ 57 °C
2. ✖ 79 °C
3. ✖ 158 °C

4. ✖ 136 °C

5. ✖ 98 °C

**Question Number : 78 Question Id : 8654 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

According to ASTM E709-95, when dry particles are used magnetic particle testing shall not be performed on the surface of parts whose temperature exceeds:

**Options :**

1. ✔ 57 °C

2. ✖ 79 °C

3. ✖ 158 °C

4. ✖ 136 °C

5. ✖ 98 °C

**Question Number : 79 Question Id : 8655 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Which machine records the change in length of specimen?

**Options :**

1. ✖ Impact testing machine

2. ✔ Universal testing machine

3. ✖ Rockwell testing machine

4. ✖ Shore scleroscope machine

5. ✖ Charpy testing machine

**Question Number : 79 Question Id : 8655 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Which machine records the change in length of specimen?

**Options :**

1. ✖ Impact testing machine

2. ✔ Universal testing machine

3. ✖ Rockwell testing machine

4. ✖ Shore scleroscope machine

5. ✖ Charpy testing machine

**Question Number : 80 Question Id : 8656 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

A test to find the energy required to break a material under a sharp blow is called:

**Options :**

1. ✖ Tensile test

2. ✖ Compressive test

3. ✖ Fatigue test

4. ✔ Impact test

5. ✖ Creep test

**Question Number : 80 Question Id : 8656 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

A test to find the energy required to break a material under a sharp blow is called:

**Options :**

1. ✖ Tensile test
2. ✖ Compressive test
3. ✖ Fatigue test
4. ✔ Impact test
5. ✖ Creep test

**Question Number : 81 Question Id : 8657 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Impact testing is done in order to study the characteristics of the material:

**Options :**

1. ✔ Under dynamic loading
2. ✖ Under fluctuation stress
3. ✖ Under repeated cyclic stress
4. ✖ Under constant stress for long period
5. ✖ Under tangential load

**Question Number : 81 Question Id : 8657 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Impact testing is done in order to study the characteristics of the material:

**Options :**

1. ✔ Under dynamic loading
2. ✖ Under fluctuation stress
3. ✖ Under repeated cyclic stress
4. ✖ Under constant stress for long period
5. ✖ Under tangential load

**Question Number : 82 Question Id : 8658 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
In impact testing by Izod method, the specimen is kept as:

**Options :**

1. ✖ Simply supported beam
2. ✔ Cantilever beam
3. ✖ Overhanging beam
4. ✖ Fixed ended beam
5. ✖ Continuous beam

**Question Number : 82 Question Id : 8658 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
In impact testing by Izod method, the specimen is kept as:

**Options :**

1. ✖ Simply supported beam
2. ✔ Cantilever beam
3. ✖ Overhanging beam
4. ✖ Fixed ended beam
5. ✖ Continuous beam

**Question Number : 83 Question Id : 8659 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

In Charpy test specimen, what is the angle of v-notch section?

**Options :**

1. ✖ 30°
2. ✔ 45°
3. ✖ 60°
4. ✖ 90°
5. ✖ 75°

**Question Number : 83 Question Id : 8659 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

In Charpy test specimen, what is the angle of v-notch section?

**Options :**

1. ✖ 30°
2. ✔ 45°
3. ✖ 60°
4. ✖ 90°
5. ✖ 75°

**Question Number : 84 Question Id : 8660 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

If a mass of 10 kg is falling from a height of 10 m, what would be its impact energy?

**Options :**

1. ✖ 100 N-m
2. ✖ 180 N-m
3. ✖ 300 N-m
4. ✖ 780 N-m
5. ✔ 980 N-m

**Question Number : 84 Question Id : 8660 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

If a mass of 10 kg is falling from a height of 10 m, what would be its impact energy?

**Options :**

1. ✖ 100 N-m
2. ✖ 180 N-m
3. ✖ 300 N-m
4. ✖ 780 N-m
5. ✔ 980 N-m

**Question Number : 85 Question Id : 8661 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

The following are the water tube steam boilers except:

**Options :**

1. ✖ Stirling and La-Mont boiler
2. ✔ Lancashire and Velcon boiler
3. ✖ Yarrow and Benson boiler

4. ✖ Babcock and Wilcox boiler
5. ✖ Benson and La-Mont boiler

**Question Number : 85 Question Id : 8661 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The following are the water tube steam boilers except:
**Options :**
1. ✖ Stirling and La-Mont boiler
2. ✔ Lancashire and Velcon boiler
3. ✖ Yarrow and Benson boiler
4. ✖ Babcock and Wilcox boiler
5. ✖ Benson and La-Mont boiler

**Question Number : 86 Question Id : 8662 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following boilers makes use of pressurized combustion?
**Options :**
1. ✔ Velox
2. ✖ Benson
3. ✖ Loeffler
4. ✖ Lamont
5. ✖ Both Benson and Lamont

**Question Number : 86 Question Id : 8662 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following boilers makes use of pressurized combustion?
**Options :**
1. ✔ Velox
2. ✖ Benson
3. ✖ Loeffler
4. ✖ Lamont
5. ✖ Both Benson and Lamont

**Question Number : 87 Question Id : 8663 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following is used to heat the feed water by utilizing the heat in the exhaust flue gases before leaving through the chimney?
**Options :**
1. ✖ Air preheater
2. ✖ Superheater
3. ✔ Economizer
4. ✖ Steam separator
5. ✖ Feed check valve

**Question Number : 87 Question Id : 8663 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following is used to heat the feed water by utilizing the heat in the exhaust flue gases before leaving through the chimney?
**Options :**

1. ✖ Air preheater
2. ✖ Superheater
3. ✔ Economizer
4. ✖ Steam separator
5. ✖ Feed check valve

**Question Number : 88 Question Id : 8664 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which device is used to increase the temperature of saturated steam without raising its pressure?
**Options :**
1. ✖ Injector
2. ✖ Fusible plug
3. ✖ Blow-off-cock
4. ✔ Superheater
5. ✖ Feed Pump

**Question Number : 88 Question Id : 8664 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which device is used to increase the temperature of saturated steam without raising its pressure?
**Options :**
1. ✖ Injector
2. ✖ Fusible plug
3. ✖ Blow-off-cock
4. ✔ Superheater
5. ✖ Feed Pump

**Question Number : 89 Question Id : 8665 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Where is an air preheater installed?
**Options :**
1. ✔ Between the economizer and chimney
2. ✖ Before the superheater
3. ✖ Before the economizer
4. ✖ Between the superheater and chimney
5. ✖ Between the feed pump and pressure gauge

**Question Number : 89 Question Id : 8665 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Where is an air preheater installed?
**Options :**
1. ✔ Between the economizer and chimney
2. ✖ Before the superheater
3. ✖ Before the economizer
4. ✖ Between the superheater and chimney
5. ✖ Between the feed pump and pressure gauge

**Question Number : 90 Question Id : 8666 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

When the circulation of water in a boiler is by a centrifugal pump, the boiler is known as:

**Options :**

1. ✖ internally fired boiler
2. ✖ externally fired boiler
3. ✖ natural circulation boiler
4. ✖ internally as well as externally fired boiler
5. ✔ forced circulation boiler

**Question Number : 90 Question Id : 8666 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

When the circulation of water in a boiler is by a centrifugal pump, the boiler is known as:

**Options :**

1. ✖ internally fired boiler
2. ✖ externally fired boiler
3. ✖ natural circulation boiler
4. ✖ internally as well as externally fired boiler
5. ✔ forced circulation boiler

**Question Number : 91 Question Id : 8667 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

An economizer in a steam generator performs the function of:

**Options :**

1. ✖ Preheating the combustion air
2. ✖ Preheating the input fuel
3. ✔ Preheating the feed water
4. ✖ Raising the temperature of steam
5. ✖ Decreasing the wetness of steam

**Question Number : 91 Question Id : 8667 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

An economizer in a steam generator performs the function of:

**Options :**

1. ✖ Preheating the combustion air
2. ✖ Preheating the input fuel
3. ✔ Preheating the feed water
4. ✖ Raising the temperature of steam
5. ✖ Decreasing the wetness of steam

**Question Number : 92 Question Id : 8668 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

In a steam power plant, why is the reheater used?

**Options :**

1. ✖ To increase the thermal efficiency of the plant
2. ✖ To increase the mean temperature of heat addition
3. ✖ To increase the dryness fraction of steam at condenser inlet
4. ✖ To increase the specific work output
5. ✔ To increase the dryness fraction of steam at condenser inlet and the specific work output

**Question Number : 92 Question Id : 8668 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
In a steam power plant, why is the reheater used?
**Options :**
1. ✖ To increase the thermal efficiency of the plant
2. ✖ To increase the mean temperature of heat addition
3. ✖ To increase the dryness fraction of steam at condenser inlet
4. ✖ To increase the specific work output
5. ✔ To increase the dryness fraction of steam at condenser inlet and the specific work output

**Question Number : 93 Question Id : 8669 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Fire tube boilers are limited to a maximum design working pressure of:
**Options :**
1. ✖ $1\ kg/cm^2$
2. ✔ $17\ kg/cm^2$
3. ✖ $100\ kg/cm^2$
4. ✖ $170\ kg/cm^2$
5. ✖ $250\ kg/cm^2$

**Question Number : 93 Question Id : 8669 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Fire tube boilers are limited to a maximum design working pressure of:
**Options :**
1. ✖ $1\ kg/cm^2$
2. ✔ $17\ kg/cm^2$
3. ✖ $100\ kg/cm^2$
4. ✖ $170\ kg/cm^2$
5. ✖ $250\ kg/cm^2$

**Question Number : 94 Question Id : 8670 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
If the diameter and thickness of the tubes is the same, a water tube boiler compared to a fire tube boiler has:
**Options :**
1. ✔ More heating surface
2. ✖ Less heating surface
3. ✖ Equal heating surface
4. ✖ Less rate of steam production
5. ✖ Equal rate of steam production

**Question Number : 94 Question Id : 8670 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

If the diameter and thickness of the tubes is the same, a water tube boiler compared to a fire tube boiler has:

**Options :**

1. ✔ More heating surface
2. ✖ Less heating surface
3. ✖ Equal heating surface
4. ✖ Less rate of steam production
5. ✖ Equal rate of steam production

**Question Number : 95 Question Id : 8671 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

In a boiler, feed water supplied per hour is 205 kg while coal fired per hour is 20 kg. The net enthalpy rise per kg of water is 148 kJ. If the calorific value of the coal is 2050 kJ/kg, then what will be the boiler efficiency?

**Options :**

1. ✖ 56%
2. ✖ 64%
3. ✖ 68%
4. ✔ 74%
5. ✖ 78%

**Question Number : 95 Question Id : 8671 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

In a boiler, feed water supplied per hour is 205 kg while coal fired per hour is 20 kg. The net enthalpy rise per kg of water is 148 kJ. If the calorific value of the coal is 2050 kJ/kg, then what will be the boiler efficiency?

**Options :**

1. ✖ 56%
2. ✖ 64%
3. ✖ 68%
4. ✔ 74%
5. ✖ 78%

**Question Number : 96 Question Id : 8672 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

The pressures and temperatures for boiler are given below. Which of these boilers can be classified as super-critical pressure boiler?

**Options :**

1. ✖ 250 psi and 150 °C
2. ✖ 10 $kg/cm^2$ and 150 °C
3. ✖ 100 $kg/cm^2$ and 450 °C
4. ✖ 150 $kg/cm^2$ and 500 °C
5. ✔ 218 $kg/cm^2$ and 540 °C

**Question Number : 96 Question Id : 8672 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

The pressures and temperatures for boiler are given below. Which of these boilers can be classified as super-critical pressure boiler?

**Options :**

1. ✖ 250 psi and 150 °C
2. ✖ 10 $kg/cm^2$ and 150 °C
3. ✖ 100 $kg/cm^2$ and 450 °C
4. ✖ 150 $kg/cm^2$ and 500 °C
5. ✔ 218 $kg/cm^2$ and 540 °C

**Question Number : 97 Question Id : 8673 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The diameter of flue tube of Cornish boiler compared to its shell is:

**Options :**

1. ✖ half
2. ✖ One-third
3. ✖ One-fifth
4. ✖ Two-fifth
5. ✔ Three-fifth

**Question Number : 97 Question Id : 8673 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The diameter of flue tube of Cornish boiler compared to its shell is:

**Options :**

1. ✖ half
2. ✖ One-third
3. ✖ One-fifth
4. ✖ Two-fifth
5. ✔ Three-fifth

**Question Number : 98 Question Id : 8674 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
High steam and low water safety valve is not used on which of the following boilers?

**Options :**

1. ✔ Locomotive and Marine boiler
2. ✖ Cornish and Lancashire boiler
3. ✖ Cochran and Cornish boiler
4. ✖ Lancashire and Cochran boiler
5. ✖ Babcock and Wilcox boiler

**Question Number : 98 Question Id : 8674 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
High steam and low water safety valve is not used on which of the following boilers?

**Options :**

1. ✔ Locomotive and Marine boiler
2. ✖ Cornish and Lancashire boiler

3. ✖ Cochran and Cornish boiler
4. ✖ Lancashire and Cochran boiler
5. ✖ Babcock and Wilcox boiler

**Question Number : 99 Question Id : 8675 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
What does the turbidity in boiler feed water cause?
**Options :**
1. ✔ Sludge
2. ✖ Scale
3. ✖ Corrosion
4. ✖ Embrittlement
5. ✖ Erosion

**Question Number : 99 Question Id : 8675 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
What does the turbidity in boiler feed water cause?
**Options :**
1. ✔ Sludge
2. ✖ Scale
3. ✖ Corrosion
4. ✖ Embrittlement
5. ✖ Erosion

**Question Number : 100 Question Id : 8676 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which type of boiler can meet rapid changes of load?
**Options :**
1. ✖ Vertical fire tube type
2. ✖ Horizontal fire tube type
3. ✖ Horizontal water tube type
4. ✔ Forced circulation type
5. ✖ Vertical water tube type

**Question Number : 100 Question Id : 8676 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which type of boiler can meet rapid changes of load?
**Options :**
1. ✖ Vertical fire tube type
2. ✖ Horizontal fire tube type
3. ✖ Horizontal water tube type
4. ✔ Forced circulation type
5. ✖ Vertical water tube type

**Question Number : 101 Question Id : 8677 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The ratio of the mixture that flows through the system and the amount of steam generated is called:
**Options :**

1. ✖ Evaporation ratio
2. ✖ Factor of evaporation
3. ✖ Boiler capacity
4. ✖ Compression ratio
5. ✔ Circulation ratio

**Question Number : 101 Question Id : 8677 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The ratio of the mixture that flows through the system and the amount of steam generated is called:
**Options :**
1. ✖ Evaporation ratio
2. ✖ Factor of evaporation
3. ✖ Boiler capacity
4. ✖ Compression ratio
5. ✔ Circulation ratio

**Question Number : 102 Question Id : 8678 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The size of boiler tubes is specified by:
**Options :**
1. ✖ mean diameter and thickness
2. ✖ inside diameter and thickness
3. ✔ outside diameter and thickness
4. ✖ both outside and inside diameter
5. ✖ outside diameter alone

**Question Number : 102 Question Id : 8678 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The size of boiler tubes is specified by:
**Options :**
1. ✖ mean diameter and thickness
2. ✖ inside diameter and thickness
3. ✔ outside diameter and thickness
4. ✖ both outside and inside diameter
5. ✖ outside diameter alone

**Question Number : 103 Question Id : 8679 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The crown of the fire box is made hemispherical in order to:
**Options :**
1. ✖ give maximum space
2. ✖ give maximum strength
3. ✖ withstand pressure inside the boiler
4. ✔ resist intense heat in the fire box
5. ✖ make it easy to manufacture

**Question Number : 103 Question Id : 8679 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

The crown of the fire box is made hemispherical in order to:

**Options :**

1. ✖ give maximum space
2. ✖ give maximum strength
3. ✖ withstand pressure inside the boiler
4. ✔ resist intense heat in the fire box
5. ✖ make it easy to manufacture

**Question Number : 104 Question Id : 8680 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

An apparatus used to reduce the temperature and heat content of a superheated vapour or a fluid is called:

**Options :**

1. ✖ Superheater
2. ✖ Air preheater
3. ✖ Steam separator
4. ✖ Feed check valve
5. ✔ Attemperator

**Question Number : 104 Question Id : 8680 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

An apparatus used to reduce the temperature and heat content of a superheated vapour or a fluid is called:

**Options :**

1. ✖ Superheater
2. ✖ Air preheater
3. ✖ Steam separator
4. ✖ Feed check valve
5. ✔ Attemperator

**Question Number : 105 Question Id : 8681 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

A steam power plant has the boiler efficiency of 91%, turbine efficiency (mechanical) of 94%, generator efficiency of 96% and cycle efficiency of 44%. If 6% of the generated power is used to run the auxiliaries, what is the overall plant efficiency?

**Options :**

1. ✖ 30%
2. ✔ 34%
3. ✖ 39%
4. ✖ 45%
5. ✖ 49%

**Question Number : 105 Question Id : 8681 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

A steam power plant has the boiler efficiency of 91%, turbine efficiency (mechanical) of 94%, generator efficiency of 96% and cycle efficiency of 44%. If 6% of the generated power is used to run the auxiliaries, what is the overall plant efficiency?

**Options :**

1. ✖ 30%

2. ✔ 34%
3. ✖ 39%
4. ✖ 45%
5. ✖ 49%

**Question Number : 106 Question Id : 8682 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following groups of devices is used for part recovery of heat from the flue through gases leaving the tube banks in a water tube boiler?

**Options :**

1. ✖ Drum internals, Superheaters, Economizer
2. ✖ Economizer, Airpreheater, Electrostatic preheater
3. ✖ Waterwall, Drum internals, Superheaters
4. ✔ Superheaters, Economizer, Air preheater
5. ✖ Waterwall, Economizer, Electrostatic preheater

**Question Number : 106 Question Id : 8682 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following groups of devices is used for part recovery of heat from the flue through gases leaving the tube banks in a water tube boiler?

**Options :**

1. ✖ Drum internals, Superheaters, Economizer
2. ✖ Economizer, Airpreheater, Electrostatic preheater
3. ✖ Waterwall, Drum internals, Superheaters
4. ✔ Superheaters, Economizer, Air preheater
5. ✖ Waterwall, Economizer, Electrostatic preheater

**Question Number : 107 Question Id : 8683 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Where is an induced draft fan normally located?

**Options :**

1. ✖ At the outlet of the steam generator before the dust collector
2. ✔ At the outlet of the steam generator after the dust collector
3. ✖ At the inlet of the steam generator before the air heater
4. ✖ At the inlet of the steam generator after the air heater
5. ✖ Between air heater and dust collector

**Question Number : 107 Question Id : 8683 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Where is an induced draft fan normally located?

**Options :**

1. ✖ At the outlet of the steam generator before the dust collector
2. ✔ At the outlet of the steam generator after the dust collector
3. ✖ At the inlet of the steam generator before the air heater
4. ✖ At the inlet of the steam generator after the air heater
5. ✖ Between air heater and dust collector

**Question Number : 108 Question Id : 8684 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
When the inspection doors on the walls of boilers are opened, the flame does not leap out because:
**Options :**
1. ✖ the holes are small
2. ✔ the pressure inside is negative
3. ✖ the flame always travels in the direction of flow
4. ✖ the holes are located beyond the furnace
5. ✖ the holes are located before the furnace

**Question Number : 108 Question Id : 8684 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
When the inspection doors on the walls of boilers are opened, the flame does not leap out because:
**Options :**
1. ✖ the holes are small
2. ✔ the pressure inside is negative
3. ✖ the flame always travels in the direction of flow
4. ✖ the holes are located beyond the furnace
5. ✖ the holes are located before the furnace

**Question Number : 109 Question Id : 8685 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Consider the following.
a) Safety valve
b) Fusible plug
c) Feed water pump
d) Pressure gauge

Which of the above would the essential boiler mountings include?
**Options :**
1. ✖ Only (a), (c) and (d)
2. ✖ Only (c) and (d)
3. ✖ Only (a), (b) and (c)
4. ✔ Only (a), (b) and (d)
5. ✖ All four

**Question Number : 109 Question Id : 8685 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Consider the following.
a) Safety valve
b) Fusible plug
c) Feed water pump
d) Pressure gauge

Which of the above would the essential boiler mountings include?
**Options :**
1. ✖ Only (a), (c) and (d)
2. ✖ Only (c) and (d)

3. ✖ Only (a), (b) and (c)
4. ✔ Only (a), (b) and (d)
5. ✖ All four

**Question Number : 110 Question Id : 8686 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Consider the following accessories.

a) Superheater
b) Air preheater
c) Economizer

What is the correct sequence of the position of these accessories along the flow of flue gas in a steam power plant?

**Options :**

1. ✖ (c), (a), (b)
2. ✖ (a), (b), (c)
3. ✔ (a), (c), (b)
4. ✖ (b), (a), (c)
5. ✖ (c), (b), (a)

**Question Number : 110 Question Id : 8686 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Consider the following accessories.

a) Superheater
b) Air preheater
c) Economizer

What is the correct sequence of the position of these accessories along the flow of flue gas in a steam power plant?

**Options :**

1. ✖ (c), (a), (b)
2. ✖ (a), (b), (c)
3. ✔ (a), (c), (b)
4. ✖ (b), (a), (c)
5. ✖ (c), (b), (a)

**Question Number : 111 Question Id : 8687 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Inside large power boiler, the flue gas pressure will be above the atmospheric pressure:

**Options :**

1. ✖ at the furnace
2. ✖ near the superheater region
3. ✖ at the base of the chimney
4. ✔ after the forced draught fan
5. ✖ at the tube side

**Question Number : 111 Question Id : 8687 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Inside large power boiler, the flue gas pressure will be above the atmospheric pressure:

**Options :**

1. ✖ at the furnace
2. ✖ near the superheater region
3. ✖ at the base of the chimney
4. ✔ after the forced draught fan
5. ✖ at the tube side

**Question Number : 112 Question Id : 8688 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

When the water level in the boiler falls to an unsafe limit, which of the following ensures the safety?

**Options :**

1. ✖ Stop valve
2. ✖ Safety valve
3. ✔ Fusible valve
4. ✖ Blow-off cock
5. ✖ Logging

**Question Number : 112 Question Id : 8688 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

When the water level in the boiler falls to an unsafe limit, which of the following ensures the safety?

**Options :**

1. ✖ Stop valve
2. ✖ Safety valve
3. ✔ Fusible valve
4. ✖ Blow-off cock
5. ✖ Logging

**Question Number : 113 Question Id : 8689 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Why should the large temperature rise of boiler feed water in the economiser be avoided?

**Options :**

1. ✖ Because the economizer efficiency will reduce
2. ✖ Because the overall steam generator efficiency will reduce
3. ✔ Because the effectiveness of regenerator will be lower
4. ✖ Because the equivalent evaporation will get affected
5. ✖ Because the factor of evaporation will get affected

**Question Number : 113 Question Id : 8689 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Why should the large temperature rise of boiler feed water in the economiser be avoided?

**Options :**

1. ✖ Because the economizer efficiency will reduce
2. ✖ Because the overall steam generator efficiency will reduce
3. ✔ Because the effectiveness of regenerator will be lower
4. ✖ Because the equivalent evaporation will get affected
5. ✖ Because the factor of evaporation will get affected

**Question Number : 114 Question Id : 8690 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following does not have a steam drum?

**Options :**

1. ✖ La mont boiler
2. ✖ Loeffler boiler
3. ✔ Benson boiler
4. ✖ Velox boiler
5. ✖ Portable boiler

**Question Number : 114 Question Id : 8690 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following does not have a steam drum?

**Options :**

1. ✖ La mont boiler
2. ✖ Loeffler boiler
3. ✔ Benson boiler
4. ✖ Velox boiler
5. ✖ Portable boiler

**Question Number : 115 Question Id : 8691 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Consider the following statements.

a) Fusible plug is a device used to put off fire in the furnace of the boiler when the level of water in the boiler falls to unsafe limit.
b) Super heater is a device used to increase the temperature of saturated steam without raising its pressure.
c) An economiser decreases the steam raising capacity of the boiler.

Which of the given statements is/are correct?

**Options :**

1. ✔ Only (a) and (b)
2. ✖ Only (b) and (c)
3. ✖ Only (a) and (c)
4. ✖ All three
5. ✖ Only (c)

**Question Number : 115 Question Id : 8691 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Consider the following statements.

a) Fusible plug is a device used to put off fire in the furnace of the boiler when the level of water in the boiler falls to unsafe limit.
b) Super heater is a device used to increase the temperature of saturated steam without raising its pressure.
c) An economiser decreases the steam raising capacity of the boiler.

Which of the given statements is/are correct?

**Options :**

1. ✔ Only (a) and (b)
2. ✖ Only (b) and (c)
3. ✖ Only (a) and (c)
4. ✖ All three
5. ✖ Only (c)

**Question Number : 116 Question Id : 8692 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
How much oxygen is needed to completely burn 1 kg of methane?
**Options :**

1. ✖ 2 kg
2. ✔ 4 kg
3. ✖ 16 kg
4. ✖ 22 kg
5. ✖ 40 kg

**Question Number : 116 Question Id : 8692 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
How much oxygen is needed to completely burn 1 kg of methane?
**Options :**

1. ✖ 2 kg
2. ✔ 4 kg
3. ✖ 16 kg
4. ✖ 22 kg
5. ✖ 40 kg

**Question Number : 117 Question Id : 8693 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following combustion systems requires maximum excess air?
**Options :**

1. ✖ Pulverized coal combustion
2. ✖ Oil burners
3. ✖ Gas burners
4. ✔ Chain gate stoker
5. ✖ Hand firing

**Question Number : 117 Question Id : 8693 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which of the following combustion systems requires maximum excess air?
**Options :**

1. ✖ Pulverized coal combustion
2. ✖ Oil burners
3. ✖ Gas burners
4. ✔ Chain gate stoker
5. ✖ Hand firing

**Question Number : 118 Question Id : 8694 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Which of the following symptoms shows that the combustion in air is necessarily complete?

**Options :**

1. ✖ Absence of $O_2$ in exhaust
2. ✖ Absence of $N_2$ in exhaust
3. ✖ Absence of free carbon in exhaust
4. ✔ Absence of carbon mono oxide in exhaust
5. ✖ Absence of free $H_2$

**Question Number : 118 Question Id : 8694 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

Which of the following symptoms shows that the combustion in air is necessarily complete?

**Options :**

1. ✖ Absence of $O_2$ in exhaust
2. ✖ Absence of $N_2$ in exhaust
3. ✖ Absence of free carbon in exhaust
4. ✔ Absence of carbon mono oxide in exhaust
5. ✖ Absence of free $H_2$

**Question Number : 119 Question Id : 8695 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

When the enthalpy or total heat of steam is h kJ/kg and the sensible heat of feed heater is $h_{fl}$ kJ/kg, then the factor of evaporation is given by:

**Options :**

1. ✔ $(h - h_{fl})/2257$
2. ✖ $(h + h_{fl})/2257$
3. ✖ $(h \times h_{fl})/2257$
4. ✖ $h/(h_{fl} \times 2257)$
5. ✖ $h_{fl}/(h \times 2257)$

**Question Number : 119 Question Id : 8695 Question Type : MCQ**

**Correct : 2.0 Wrong : 1.0**

When the enthalpy or total heat of steam is h kJ/kg and the sensible heat of feed heater is $h_{fl}$ kJ/kg, then the factor of evaporation is given by:

**Options :**

1. ✔ $(h - h_{fl})/2257$
2. ✖ $(h + h_{fl})/2257$
3. ✖ $(h \times h_{fl})/2257$
4. ✖ $h/(h_{fl} \times 2257)$
5. ✖ $h_{fl}/(h \times 2257)$

**Question Number : 120 Question Id : 8696 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The amount of water evaporated, in kg, per kg of fuel burnt is called:

**Options :**

1. ✖ equivalent evaporation from and at 100 °C
2. ✔ evaporative capacity of the boiler
3. ✖ boiler efficiency
4. ✖ boiler capacity
5. ✖ coal amount

**Question Number : 120 Question Id : 8696 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The amount of water evaporated, in kg, per kg of fuel burnt is called:

**Options :**

1. ✖ equivalent evaporation from and at 100 °C
2. ✔ evaporative capacity of the boiler
3. ✖ boiler efficiency
4. ✖ boiler capacity
5. ✖ coal amount

**Question Number : 121 Question Id : 8697 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
In a boiler, various heat losses take place. The biggest loss is due to:

**Options :**

1. ✖ the moisture in fuel
2. ✔ dry flue gases
3. ✖ steam formation
4. ✖ unburnt carbon
5. ✖ incomplete combustion

**Question Number : 121 Question Id : 8697 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
In a boiler, various heat losses take place. The biggest loss is due to:

**Options :**

1. ✖ the moisture in fuel
2. ✔ dry flue gases
3. ✖ steam formation
4. ✖ unburnt carbon
5. ✖ incomplete combustion

**Question Number : 122 Question Id : 8698 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

The chimney draught varies with:

a) the climatic conditions
b) the temperature of furnace gases
c) the height of the chimney
d) the boiler shell dimension

Which of these is correct?

**Options :**

1. ✖ Only (a), (b) and (d)
2. ✖ Only (b) and (d)
3. ✖ Only (b), (c) and (d)
4. ✔ Only (a), (b) and (c)
5. ✖ All four

**Question Number : 122 Question Id : 8698 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

The chimney draught varies with:

a) the climatic conditions
b) the temperature of furnace gases
c) the height of the chimney
d) the boiler shell dimension

Which of these is correct?

**Options :**

1. ✖ Only (a), (b) and (d)
2. ✖ Only (b) and (d)
3. ✖ Only (b), (c) and (d)
4. ✔ Only (a), (b) and (c)
5. ✖ All four

**Question Number : 123 Question Id : 8699 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

The draught of locomotive boilers is produced by:

**Options :**

1. ✖ a chimney
2. ✖ a centrifugal fan
3. ✔ a steam jet
4. ✖ blowers
5. ✖ an induced fan

**Question Number : 123 Question Id : 8699 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

The draught of locomotive boilers is produced by:

**Options :**

1. ✖ a chimney
2. ✖ a centrifugal fan
3. ✔ a steam jet

4. ✖ blowers
5. ✖ an induced fan

**Question Number : 124 Question Id : 8700 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The velocity of flue gases ($V_1$) through the chimney under a static draught of H metres is given by:

**Options :**
1. ✖ $V_1 = 4.43H$
2. ✔ $V_1 = 4.43\sqrt{H}$
3. ✖ $V_1 = 4.43H^2$
4. ✖ $V_1 = \frac{H}{\sqrt{2g}}$
5. ✖ $V_1 = 2g\sqrt{H}$

**Question Number : 124 Question Id : 8700 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The velocity of flue gases ($V_1$) through the chimney under a static draught of H metres is given by:

**Options :**
1. ✖ $V_1 = 4.43H$
2. ✔ $V_1 = 4.43\sqrt{H}$
3. ✖ $V_1 = 4.43H^2$
4. ✖ $V_1 = \frac{H}{\sqrt{2g}}$
5. ✖ $V_1 = 2g\sqrt{H}$

**Question Number : 125 Question Id : 8701 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
For maximum mass of hot gases discharged through the chimney:

**Options :**
1. ✔ $\frac{T_2}{T_1} = \frac{2(m+1)}{m}$
2. ✖ $\frac{T_2}{T_1} = \frac{(m+1)}{m}$
3. ✖ $\frac{T_2}{T_1} = \frac{(m+1)}{2m}$
4. ✖ $\frac{T_2}{T_1} = \frac{m}{(m+1)}$
5. ✖ $\frac{T_2}{T_1} = \frac{2m}{(m+1)}$

**Question Number : 125 Question Id : 8701 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
For maximum mass of hot gases discharged through the chimney:
**Options :**
1. ✔ $\frac{T_2}{T_1} = \frac{2(m+1)}{m}$
2. ✖ $\frac{T_2}{T_1} = \frac{(m+1)}{m}$
3. ✖ $\frac{T_2}{T_1} = \frac{(m+1)}{2m}$
4. ✖ $\frac{T_2}{T_1} = \frac{m}{(m+1)}$
5. ✖ $\frac{T_2}{T_1} = \frac{2m}{(m+1)}$

**Question Number : 126 Question Id : 8702 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The recommended Tds level in boiler drum that can be safely maintained for the water tube boiler is:
**Options :**
1. ✔ 3000 - 3500 PPM
2. ✖ 2000 - 2500 PPM
3. ✖ 5000 - 5500 PPM
4. ✖ 6000 - 6500 PPM
5. ✖ 1000 - 2000 PPM

**Question Number : 126 Question Id : 8702 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The recommended Tds level in boiler drum that can be safely maintained for the water tube boiler is:
**Options :**
1. ✔ 3000 - 3500 PPM
2. ✖ 2000 - 2500 PPM
3. ✖ 5000 - 5500 PPM
4. ✖ 6000 - 6500 PPM
5. ✖ 1000 - 2000 PPM

**Question Number : 127 Question Id : 8703 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Which welding process is not used for manufacturing boiler pipe?
**Options :**
1. ✖ Submerged arc welding
2. ✖ Gas tungsten arc welding
3. ✖ Gas metal arc welding
4. ✖ Plasma arc welding
5. ✔ Brazing

**Question Number : 127 Question Id : 8703 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Which welding process is not used for manufacturing boiler pipe?

**Options :**

1. ✖ Submerged arc welding
2. ✖ Gas tungsten arc welding
3. ✖ Gas metal arc welding
4. ✖ Plasma arc welding
5. ✔ Brazing

**Question Number : 128 Question Id : 8704 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

In India, a boiler should conform to safety regulations of:

**Options :**

1. ✖ DIN
2. ✖ BIS
3. ✖ ASTM
4. ✔ IBR
5. ✖ ASME

**Question Number : 128 Question Id : 8704 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
In India, a boiler should conform to safety regulations of:
**Options :**
1. ✖ DIN
2. ✖ BIS
3. ✖ ASTM
4. ✔ IBR
5. ✖ ASME

**Question Number : 129 Question Id : 8705 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

In India, inspection and certification of boiler is done under an act of which of the following?

**Options :**

1. ✔ IBR
2. ✖ SME
3. ✖ ASTM
4. ✖ Governance
5. ✖ NGT

**Question Number : 129 Question Id : 8705 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
In India, inspection and certification of boiler is done under an act of which of the following?
**Options :**
1. ✔ IBR
2. ✖ SME
3. ✖ ASTM
4. ✖ Governance
5. ✖ NGT

**Question Number : 130 Question Id : 8706 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Bend test types are:

a) Root bend
b) Face bend
c) Side bend
d) Izod test

Choose the correct answer below.

**Options :**

1. ✖ Only (a)
2. ✖ Only (b)
3. ✔ All four
4. ✖ Only (d)
5. ✖ Only (c)

**Question Number : 130 Question Id : 8706 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Bend test types are:

a) Root bend
b) Face bend
c) Side bend
d) Izod test

Choose the correct answer below.

**Options :**

1. ✖ Only (a)
2. ✖ Only (b)
3. ✔ All four
4. ✖ Only (d)
5. ✖ Only (c)

**Question Number : 131 Question Id : 8707 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Which body is empowered to amend the Indian Boiler Regulation?

**Options :**

1. ✔ Central Boiler Board
2. ✖ Pollution Control Board
3. ✖ Boiler Testing Board
4. ✖ Green Tribunal Board
5. ✖ Inspection Boiler Board

**Question Number : 131 Question Id : 8707 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Which body is empowered to amend the Indian Boiler Regulation?

**Options :**

1. ✔ Central Boiler Board
2. ✖ Pollution Control Board

3. ✖ Boiler Testing Board
4. ✖ Green Tribunal Board
5. ✖ Inspection Boiler Board

**Question Number : 132 Question Id : 8708 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
In boiler design, what does the term RLA stand for?
**Options :**
1. ✔ Remnant Life Assessment
2. ✖ Remaining Life Application
3. ✖ Running Life Assessment
4. ✖ Real Life Approach
5. ✖ Running Life Application

**Question Number : 132 Question Id : 8708 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
In boiler design, what does the term RLA stand for?
**Options :**
1. ✔ Remnant Life Assessment
2. ✖ Remaining Life Application
3. ✖ Running Life Assessment
4. ✖ Real Life Approach
5. ✖ Running Life Application

**Question Number : 133 Question Id : 8709 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
De-aeration of boiler feed water is referred to as:
**Options :**
1. ✔ Removal of dissolved gases
2. ✖ Removal of silica
3. ✖ Removal of scale blow down
4. ✖ Phosphate treatment of water
5. ✖ Dust particle removal

**Question Number : 133 Question Id : 8709 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
De-aeration of boiler feed water is referred to as:
**Options :**
1. ✔ Removal of dissolved gases
2. ✖ Removal of silica
3. ✖ Removal of scale blow down
4. ✖ Phosphate treatment of water
5. ✖ Dust particle removal

**Question Number : 134 Question Id : 8710 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Good opportunity for energy savings from continuous blow down water of boiler is by:
**Options :**

1. ✖ reusing the hot water so formed as make up water
2. ✖ using blow down steam to run the steam turbine
3. ✔ utilising flash steam in de-aerator
4. ✖ using regeneration
5. ✖ using reheating

**Question Number : 134 Question Id : 8710 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Good opportunity for energy savings from continuous blow down water of boiler is by:
**Options :**
1. ✖ reusing the hot water so formed as make up water
2. ✖ using blow down steam to run the steam turbine
3. ✔ utilising flash steam in de-aerator
4. ✖ using regeneration
5. ✖ using reheating

**Question Number : 135 Question Id : 8711 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
With the increase in pressure, the temperature of steam will:
**Options :**
1. ✔ increase
2. ✖ decrease
3. ✖ remain constant
4. ✖ become zero
5. ✖ either increase or decrease

**Question Number : 135 Question Id : 8711 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
With the increase in pressure, the temperature of steam will:
**Options :**
1. ✔ increase
2. ✖ decrease
3. ✖ remain constant
4. ✖ become zero
5. ✖ either increase or decrease

**Question Number : 136 Question Id : 8712 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Consider the following statements.

a) Any pipe through which the steam passes from a boiler to a prime mover.
b) The pipe whose internal diameter exceeds 254 mm.
c) The pipe whose internal diameter is less than 254 mm.

Which of the statements given above correctly define an IBR pipe (steam pipe)?

**Options :**
1. ✖ Only (a)
2. ✖ Only (b)

3. ✖ Only (c)
4. ✔ Only (a) and (b)
5. ✖ Only (b) and (c)

**Question Number : 136 Question Id : 8712 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Consider the following statements.

a) Any pipe through which the steam passes from a boiler to a prime mover.
b) The pipe whose internal diameter exceeds 254 mm.
c) The pipe whose internal diameter is less than 254 mm.

Which of the statements given above correctly define an IBR pipe (steam pipe)?

**Options :**

1. ✖ Only (a)
2. ✖ Only (b)
3. ✖ Only (c)
4. ✔ Only (a) and (b)
5. ✖ Only (b) and (c)

**Question Number : 137 Question Id : 8713 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Which of the following groups is classified as external water treatment methods?

**Options :**

1. ✔ Precipitation process, Ion-exchange process, De-aeration, Filtration process
2. ✖ Boiling process, De-aeration, Foaming control, Priming control
3. ✖ Foaming control, Ion-exchange process, De-aeration, Priming control
4. ✖ Priming control, Soda lime method, Precipitation process, Filtration process
5. ✖ Soda lime method, Boiling process, De-aeration, Foaming control

**Question Number : 137 Question Id : 8713 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Which of the following groups is classified as external water treatment methods?

**Options :**

1. ✔ Precipitation process, Ion-exchange process, De-aeration, Filtration process
2. ✖ Boiling process, De-aeration, Foaming control, Priming control
3. ✖ Foaming control, Ion-exchange process, De-aeration, Priming control
4. ✖ Priming control, Soda lime method, Precipitation process, Filtration process
5. ✖ Soda lime method, Boiling process, De-aeration, Foaming control

**Question Number : 138 Question Id : 8714 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Under Indian Boiler Regulation Act, what is the minimum capacity of any closed vessel that generates steam?

**Options :**

1. ✖ 2.275 litres
2. ✖ 22.75 Kilo litres
3. ✖ 227.5 litres
4. ✔ 22.75 litres

5. ✖ 2275 litres

**Question Number : 138 Question Id : 8714 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Under Indian Boiler Regulation Act, what is the minimum capacity of any closed vessel that generates steam?
**Options :**
1. ✖ 2.275 litres
2. ✖ 22.75 Kilo litres
3. ✖ 227.5 litres
4. ✔ 22.75 litres
5. ✖ 2275 litres

**Question Number : 139 Question Id : 8715 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
According to IBR-1950, what is the range of evaporation ratio (steam to fuel ratio) of an efficient oil fired boiler?
**Options :**
1. ✖ 5 to 6
2. ✔ 13 to 16
3. ✖ 1 to 3
4. ✖ 7 to 9
5. ✖ 8 to 10

**Question Number : 139 Question Id : 8715 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
According to IBR-1950, what is the range of evaporation ratio (steam to fuel ratio) of an efficient oil fired boiler?
**Options :**
1. ✖ 5 to 6
2. ✔ 13 to 16
3. ✖ 1 to 3
4. ✖ 7 to 9
5. ✖ 8 to 10

**Question Number : 140 Question Id : 8716 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The presence of calcium and magnesium bicarbonates in water to steam boilers would form:
**Options :**
1. ✖ an acidic solution
2. ✔ an alkaline solution
3. ✖ a neutral solution
4. ✖ an acidic or an alkaline solution
5. ✖ a neutral acidic solution

**Question Number : 140 Question Id : 8716 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The presence of calcium and magnesium bicarbonates in water to steam boilers would form:
**Options :**
1. ✖ an acidic solution

2. ✔ an alkaline solution
3. ✖ a neutral solution
4. ✖ an acidic or an alkaline solution
5. ✖ a neutral acidic solution

**Question Number : 141 Question Id : 8717 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Dry saturated steam at 3 bar is used to heat water flowing at constant rate of 1.5 litres/sec from 10 °C to 60 °C. The latent heat of vaporization, $h_{fg}$, at 3 bar is 2133.4 kJ/kg and the specific heat of water is 4.19 kJ/kg °C. Determine the steam flow rate.

**Options :**

1. ✖ 320 kg/hr
2. ✖ 380 kg/hr
3. ✖ 402 kg/hr
4. ✖ 432 kg/hr
5. ✔ 530 kg/hr

**Question Number : 141 Question Id : 8717 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Dry saturated steam at 3 bar is used to heat water flowing at constant rate of 1.5 litres/sec from 10 °C to 60 °C. The latent heat of vaporization, $h_{fg}$, at 3 bar is 2133.4 kJ/kg and the specific heat of water is 4.19 kJ/kg °C. Determine the steam flow rate.

**Options :**

1. ✖ 320 kg/hr
2. ✖ 380 kg/hr
3. ✖ 402 kg/hr
4. ✖ 432 kg/hr
5. ✔ 530 kg/hr

**Question Number : 142 Question Id : 8718 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Find the percentage of excess air supplied for a boiler, if the theoretical $CO_2$ is 20.67% and the actual $CO_2$ measured in the flue gas is 14%.

**Options :**

1. ✔ 37.04%
2. ✖ 52.14%
3. ✖ 27.26%
4. ✖ 49.34%
5. ✖ 47.44%

**Question Number : 142 Question Id : 8718 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Find the percentage of excess air supplied for a boiler, if the theoretical $CO_2$ is 20.67% and the actual $CO_2$ measured in the flue gas is 14%.

**Options :**

1. ✔ 37.04%
2. ✖ 52.14%
3. ✖ 27.26%
4. ✖ 49.34%
5. ✖ 47.44%

**Question Number : 143 Question Id : 8719 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Steam from two sources is mixed in common main at 10 kgf/cm$^2$ pressure. The steam from first source is 0.8 dry, while from the second source has 100 °C superheat. What will be the quality of mixture?

**Options :**

1. ✖ 0.85
2. ✖ 0.87
3. ✔ 0.936
4. ✖ 0.915
5. ✖ 0.9

**Question Number : 143 Question Id : 8719 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

Steam from two sources is mixed in common main at 10 kgf/cm$^2$ pressure. The steam from first source is 0.8 dry, while from the second source has 100 °C superheat. What will be the quality of mixture?

**Options :**

1. ✖ 0.85
2. ✖ 0.87
3. ✔ 0.936
4. ✖ 0.915
5. ✖ 0.9

**Question Number : 144 Question Id : 8720 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

The ratio of $CO_2$ to CO by weight after combustion of C is 9 : 1. What is the weight of the oxygen consumed mole (M) of carbon?

**Options :**

1. ✖ 1.2 M
2. ✖ 1.266 M
3. ✖ 2.41 M
4. ✔ 2.533 M
5. ✖ 2.8 M

**Question Number : 144 Question Id : 8720 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

The ratio of $CO_2$ to CO by weight after combustion of C is 9 : 1. What is the weight of the oxygen consumed mole (M) of carbon?

**Options :**

1. ✖ 1.2 M
2. ✖ 1.266 M
3. ✖ 2.41 M
4. ✔ 2.533 M
5. ✖ 2.8 M

**Question Number : 145 Question Id : 8721 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Water at a pressure of 0.25 MPa is converted into steam with a dryness fraction of 0.9. What is the external work done?

**Options :**

1. ✖ 2083.5 kJ/kg
2. ✖ 2065 kJ/kg
3. ✖ 182.5 kJ/kg
4. ✔ 164.25 kJ/kg
5. ✖ 462.53 kJ/kg

**Question Number : 145 Question Id : 8721 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
Water at a pressure of 0.25 MPa is converted into steam with a dryness fraction of 0.9. What is the external work done?

**Options :**

1. ✖ 2083.5 kJ/kg
2. ✖ 2065 kJ/kg
3. ✖ 182.5 kJ/kg
4. ✔ 164.25 kJ/kg
5. ✖ 462.53 kJ/kg

**Question Number : 146 Question Id : 8722 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
After complete combustion of C with just sufficient air, the weight of $CO_2$ was found to be 41% of the weight of $N_2$. What was the air : carbon ratio by weight?

**Options :**

1. ✖ 9.7
2. ✖ 10.1
3. ✔ 11.6
4. ✖ 12.1
5. ✖ 14.4

**Question Number : 146 Question Id : 8722 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
After complete combustion of C with just sufficient air, the weight of $CO_2$ was found to be 41% of the weight of $N_2$. What was the air : carbon ratio by weight?

**Options :**

1. ✖ 9.7
2. ✖ 10.1
3. ✔ 11.6
4. ✖ 12.1
5. ✖ 14.4

**Question Number : 147 Question Id : 8723 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

A chimney is 28 m high and the temperature of hot gases in the chimney is 320 °C. The temperature of outside air is 23 °C, and the furnace is supplied with 15 kg of air per kg of fuel burnt. Calculate draught, in mm, of water.

**Options :**

1. ✖ 10.7 mm
2. ✔ 15.6 mm
3. ✖ 12.4 mm
4. ✖ 21.7 mm
5. ✖ 16.2 mm

**Question Number : 147 Question Id : 8723 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

A chimney is 28 m high and the temperature of hot gases in the chimney is 320 °C. The temperature of outside air is 23 °C, and the furnace is supplied with 15 kg of air per kg of fuel burnt. Calculate draught, in mm, of water.

**Options :**

1. ✖ 10.7 mm
2. ✔ 15.6 mm
3. ✖ 12.4 mm
4. ✖ 21.7 mm
5. ✖ 16.2 mm

**Question Number : 148 Question Id : 8724 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

The specific volume of water when heated at 0 °C:

**Options :**

1. ✖ first increases, then decreases
2. ✔ first decreases, then increases
3. ✖ increases steadily
4. ✖ decreases steadily
5. ✖ varies exponentially

**Question Number : 148 Question Id : 8724 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**

The specific volume of water when heated at 0 °C:

**Options :**

1. ✖ first increases, then decreases
2. ✔ first decreases, then increases

3. ✖ increases steadily
4. ✖ decreases steadily
5. ✖ varies exponentially

**Question Number : 149 Question Id : 8725 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The major axis of elliptical manholes on the shell should be provided:
**Options :**
1. ✖ longitudinally
2. ✔ circumferentially
3. ✖ on dished end
4. ✖ anywhere
5. ✖ vertically

**Question Number : 149 Question Id : 8725 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The major axis of elliptical manholes on the shell should be provided:
**Options :**
1. ✖ longitudinally
2. ✔ circumferentially
3. ✖ on dished end
4. ✖ anywhere
5. ✖ vertically

**Question Number : 150 Question Id : 8726 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The draught produced by steel chimney as compared to that produced by brick chimney for the same height:
**Options :**
1. ✖ is less
2. ✔ is more
3. ✖ is the same
4. ✖ may be more or less
5. ✖ is independent of the chimney material

**Question Number : 150 Question Id : 8726 Question Type : MCQ**
**Correct : 2.0 Wrong : 1.0**
The draught produced by steel chimney as compared to that produced by brick chimney for the same height:
**Options :**
1. ✖ is less
2. ✔ is more
3. ✖ is the same
4. ✖ may be more or less
5. ✖ is independent of the chimney material